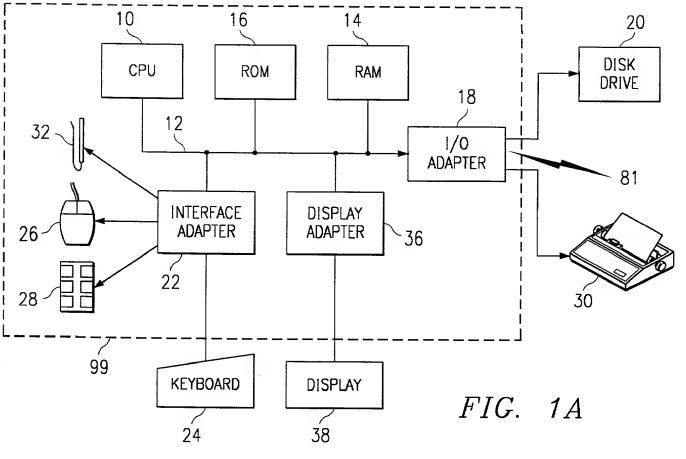

10
16
14
20
CPU
ROM
RAM
DISK DRIVE
18
12
32
I/O ADAPTER
81
INTERFACE ADAPTER
DISPLAY ADAPTER
36
26
22
28
30
99
KEYBOARD
DISPLAY
24
38

FIG. 1A

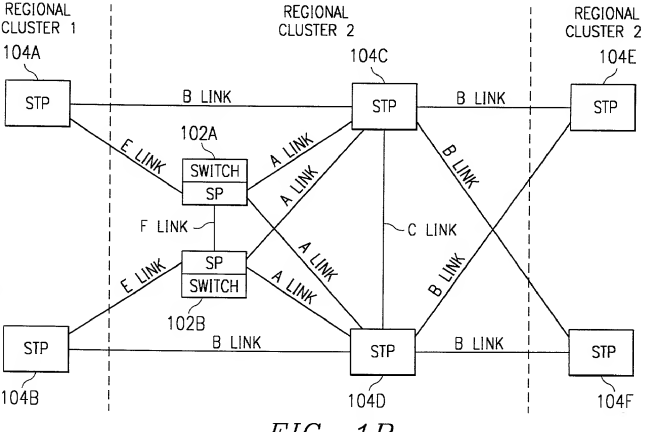

REGIONAL CLUSTER 1
REGIONAL CLUSTER 2
REGIONAL CLUSTER 2
104A
104C
104E
STP
B LINK
STP
B LINK
STP
102A
E LINK
A LINK
SWITCH
SP
A LINK
B LINK
F LINK
C LINK
SP
SWITCH
A LINK
E LINK
A LINK
B LINK
102B
STP
B LINK
STP
B LINK
STP
104B
104D
104F

FIG. 1B

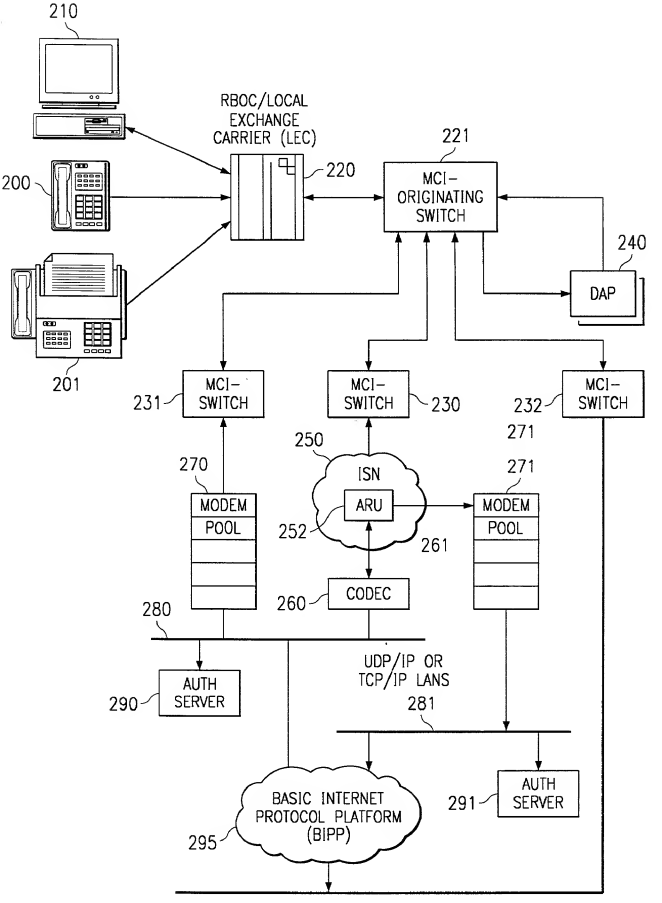

210
RBOC/LOCAL EXCHANGE CARRIER (LEC)
220
221
MCI– ORIGINATING SWITCH
200
240
DAP
201
231
MCI– SWITCH
230
MCI– SWITCH
232
MCI– SWITCH
271
250
ISN
ARU
252
261
270
MODEM POOL
271
MODEM POOL
260
CODEC
280
UDP/IP OR TCP/IP LANS
281
290
AUTH SERVER
291
AUTH SERVER
295
BASIC INTERNET PROTOCOL PLATFORM (BIPP)

FIG. 1C

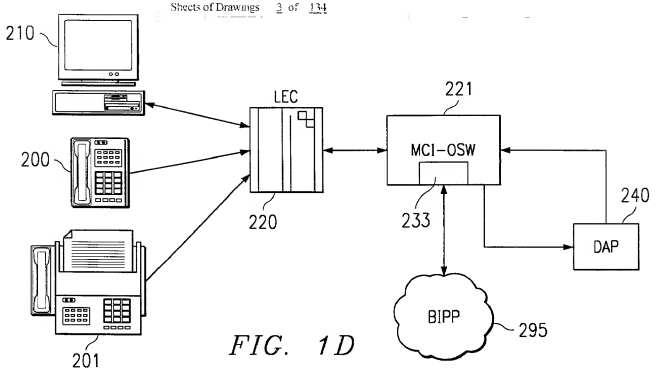

210
200
201
LEC
220
221
MCI-OSW
233
240
DAP
BIPP
295

FIG. 1D

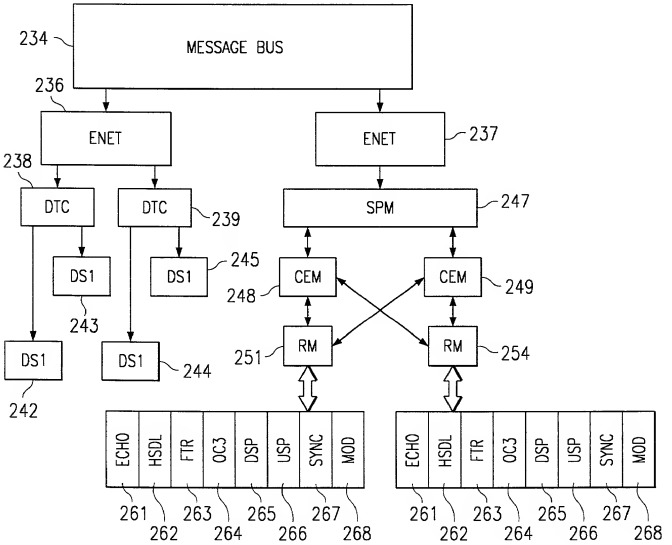

234
MESSAGE BUS
236
ENET
ENET
237
238
DTC
DTC
239
SPM
247
DS1
DS1
245
CEM
CEM
249
248
243
DS1
DS1
244
RM
RM
254
251
242
ECHO
HSDL
FTR
OC3
DSP
USP
SYNC
MOD
261
262
263
264
265
266
267
268

FIG. 1E

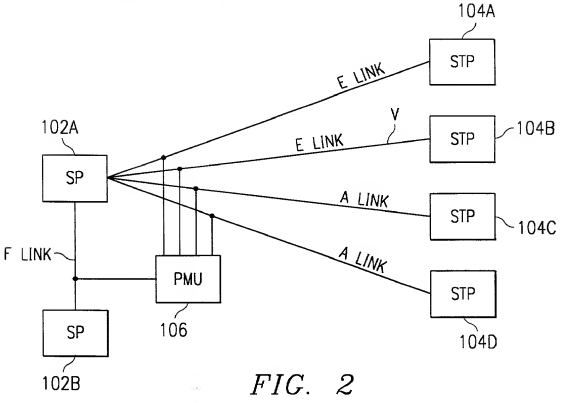

104A
STP
E LINK
E LINK
V
102A
SP
STP
104B
A LINK
STP
104C
F LINK
PMU
A LINK
STP
SP
106
104D
102B

FIG. 2

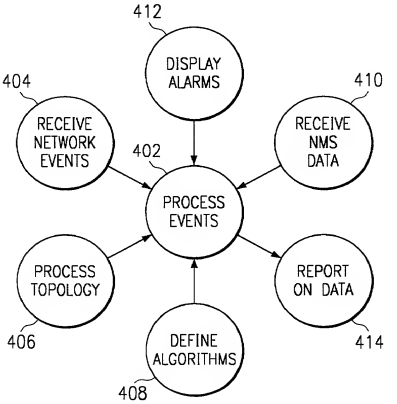

412
DISPLAY ALARMS
404
410
RECEIVE NETWORK EVENTS
RECEIVE NMS DATA
402
PROCESS EVENTS
PROCESS TOPOLOGY
REPORT ON DATA
406
DEFINE ALGORITHMS
414
408

FIG. 4

TOKYO 8866860

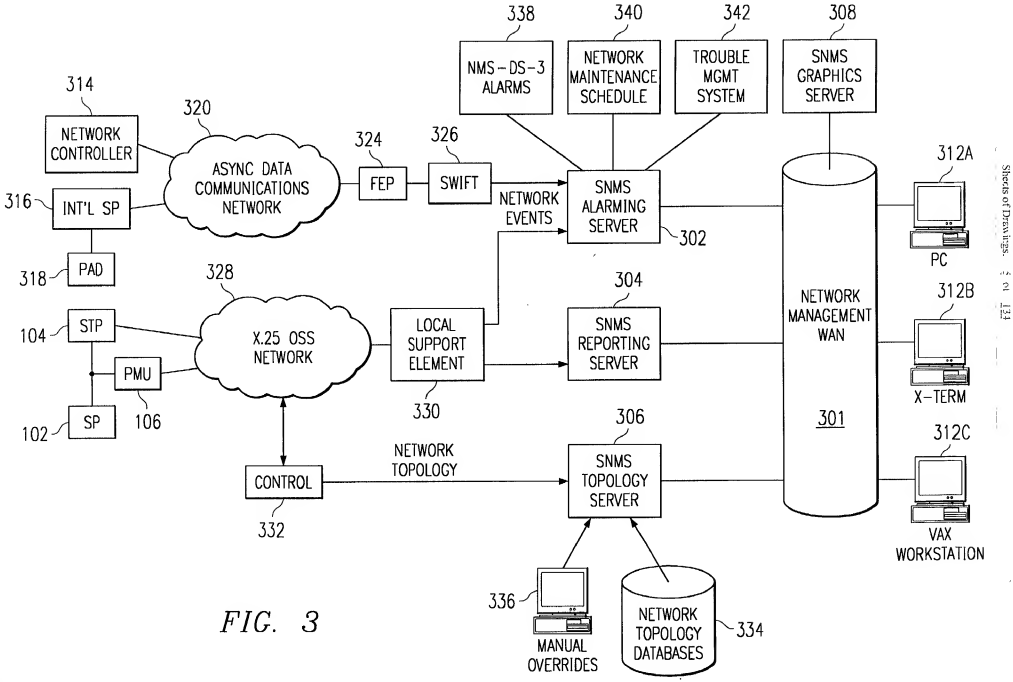


FIG. 3

Docket No.: VON-96-036-C1
Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Improved Quality of Service in a Hybrid Network
Inventors: ELLIOT et al
Sheets of Drawings: 5 on 134

VON96-046C1

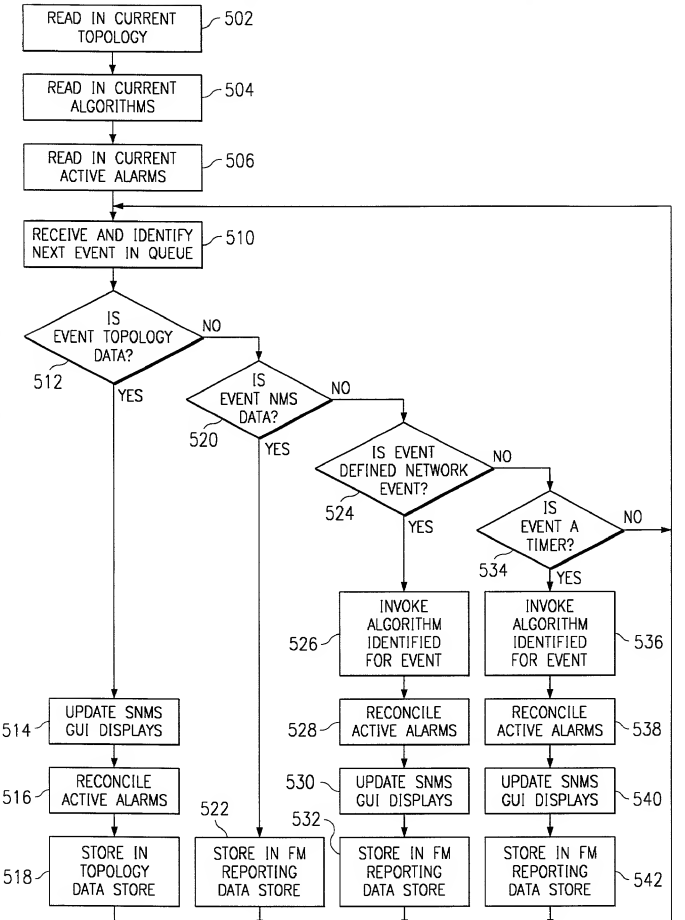
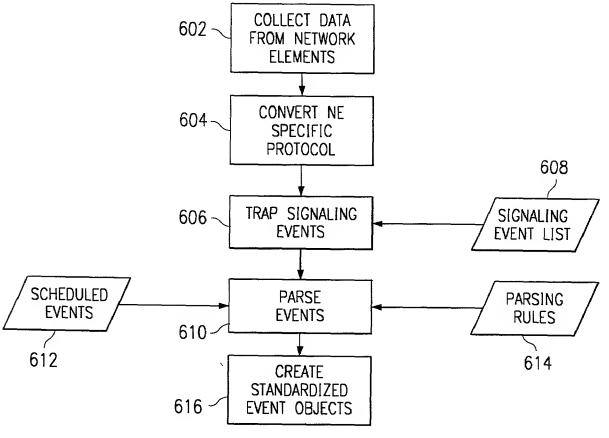


FIG. 5



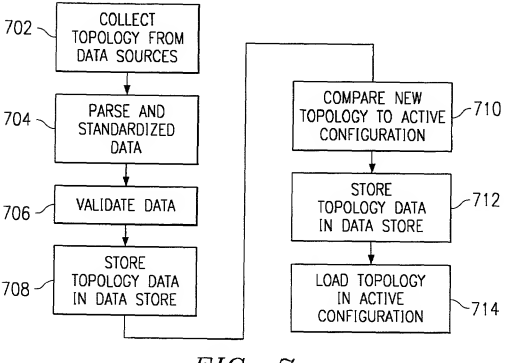


FIG. 7

09/760,983 - 05/14/01

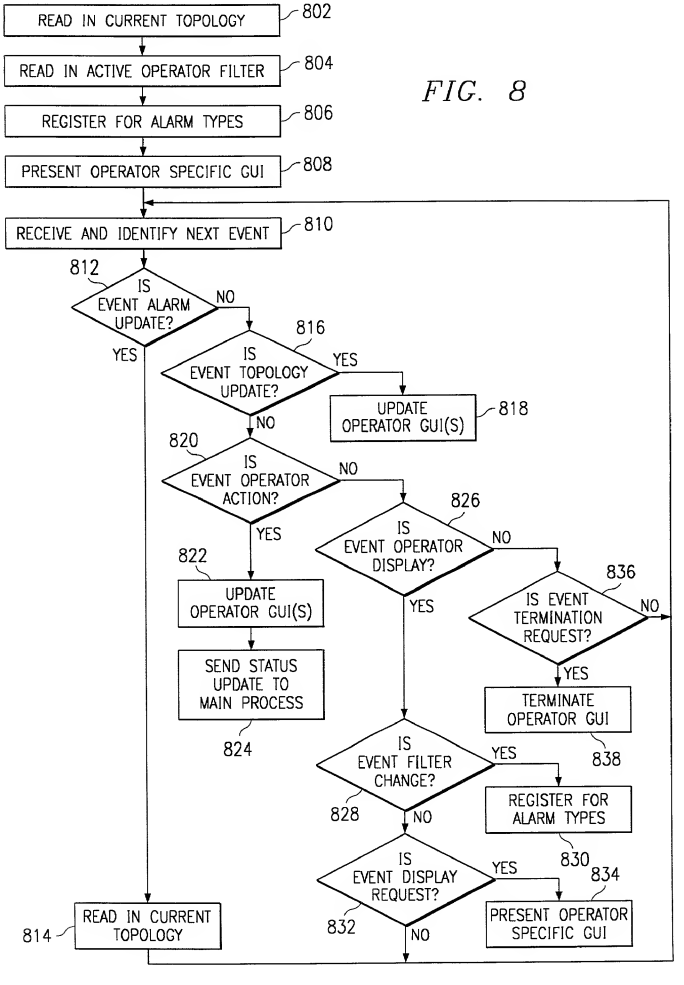


FIG. 8

TOHTSD:E866286D

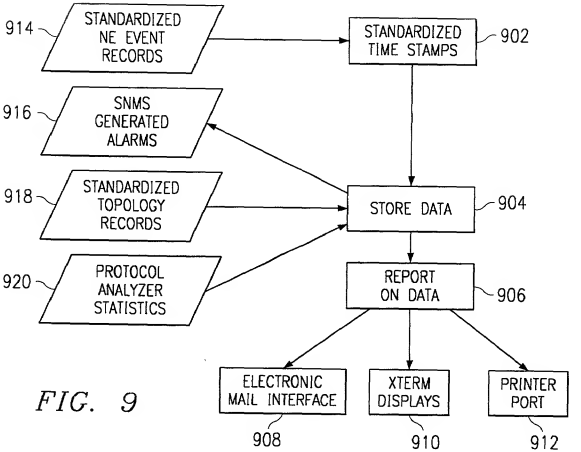

914
STANDARDIZED NE EVENT RECORDS
902
STANDARDIZED TIME STAMPS
916
SNMS GENERATED ALARMS
918
STANDARDIZED TOPOLOGY RECORDS
904
STORE DATA
920
PROTOCOL ANALYZER STATISTICS
906
REPORT ON DATA
ELECTRONIC MAIL INTERFACE
908
XTERM DISPLAYS
910
PRINTER PORT
912

FIG. 9

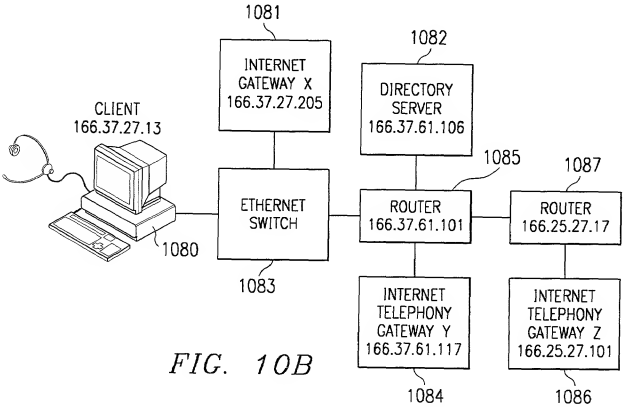

1081
INTERNET GATEWAY X 166.37.27.205
1082
DIRECTORY SERVER 166.37.61.106
CLIENT 166.37.27.13
1085
1087
ETHERNET SWITCH
ROUTER 166.37.61.101
ROUTER 166.25.27.17
1080
1083
INTERNET TELEPHONY GATEWAY Y 166.37.61.117
INTERNET TELEPHONY GATEWAY Z 166.25.27.101
1084
1086

FIG. 10B

US5799983 .051402

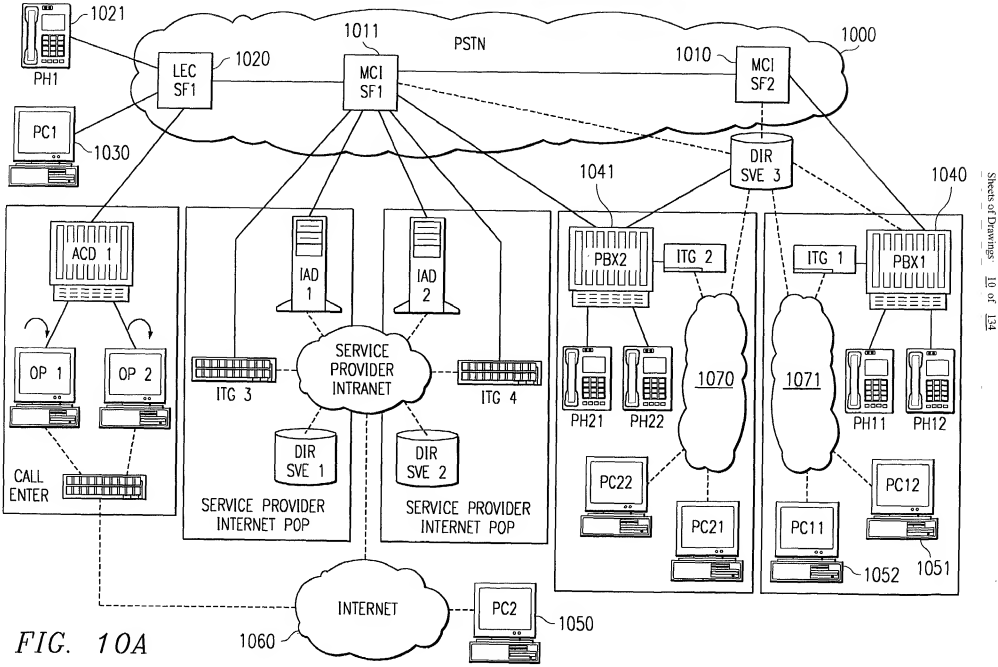


FIG. 10A

Docket No : VON-96-046-C1 Appln No : NOT ASSIGNED
Title : A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors : ELLIOT et al
Sheets of Drawings: 10 of 134

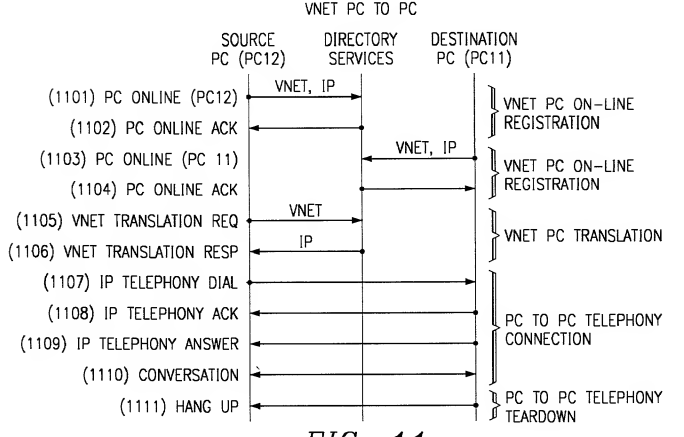


FIG. 11

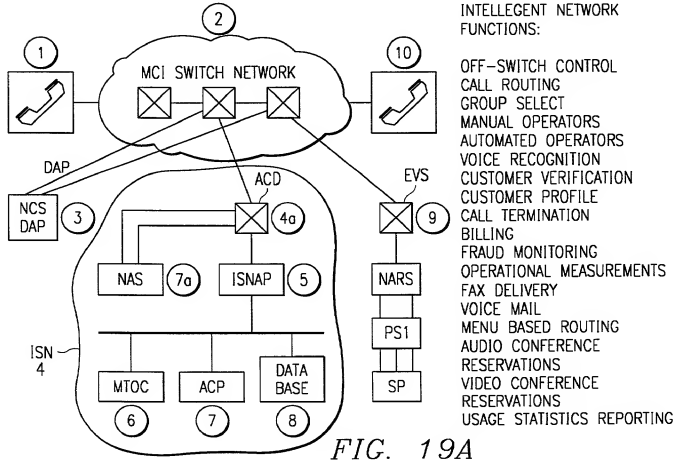


FIG. 19A

10,750,866

TOHT90 "E866/860

Docket No.: VON-96-016-C1 Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheets of Drawings: 12 of 134

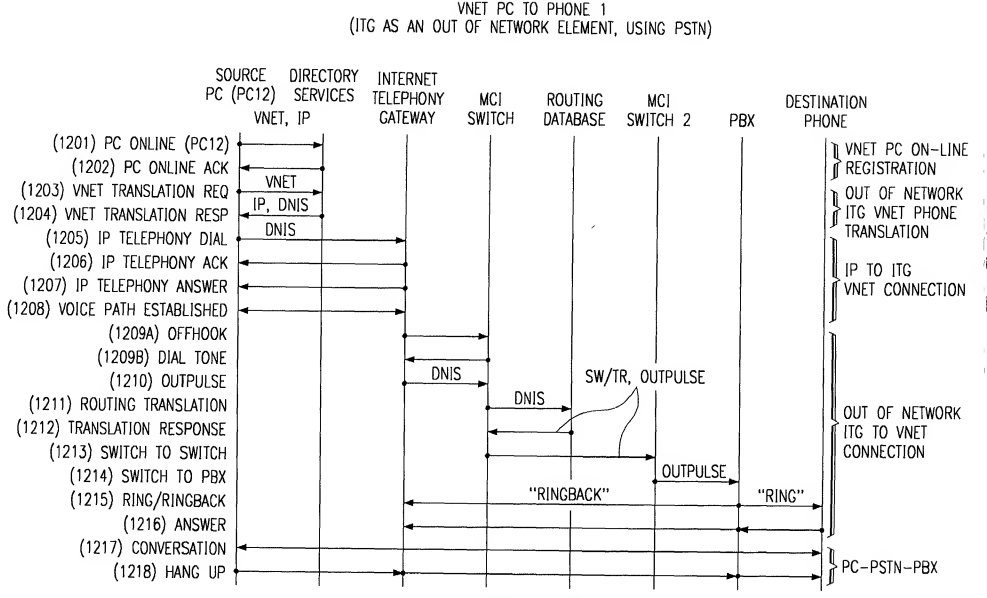


FIG. 12

TONTOU ES66/860

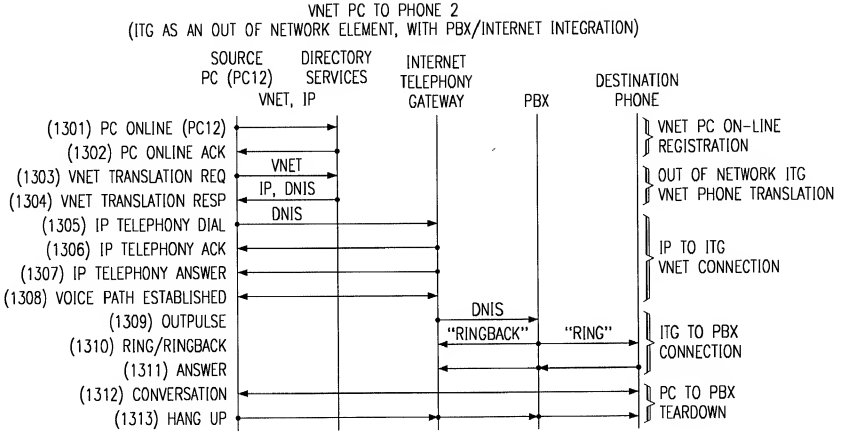


FIG. 13

T0:T90*E8667860

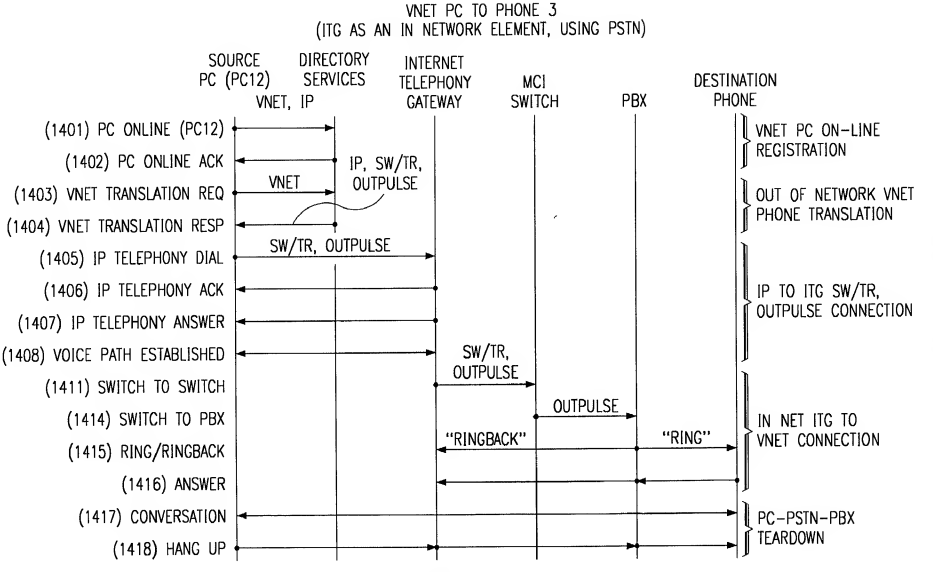


FIG. 14

Docket No. VON-96-046-C1 Appln No.: NOT ASSIGNED
Title: System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheets of Drawings: 14 of 134

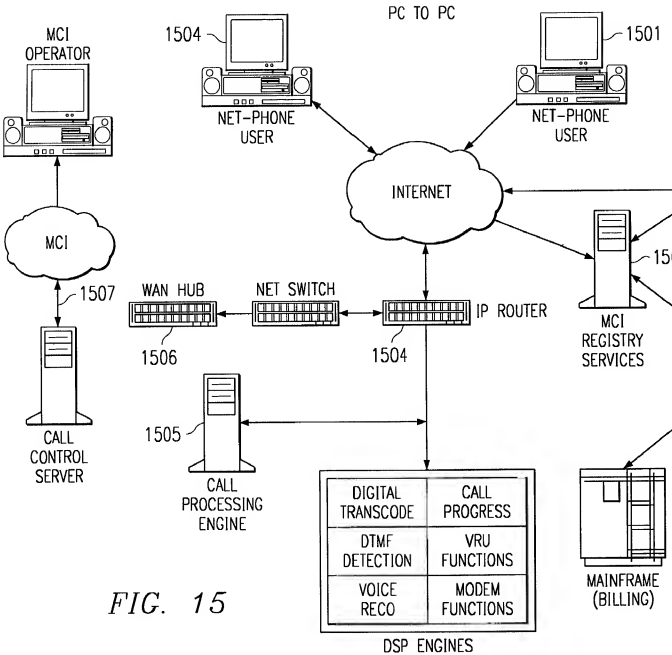

PC TO PC
MCI OPERATOR
1504
1501
NET-PHONE USER
NET-PHONE USER
INTERNET
IP ROUTER
MCI
1502
1507
WAN HUB
NET SWITCH
IP ROUTER
1506
1504
MCI REGISTRY SERVICES
ISP GATEWAY
MCI INTELLIGENT NETWORK
CALL CONTROL SERVER
1505
CALL PROCESSING ENGINE
DIGITAL TRANSCODE
CALL PROGRESS
DTMF DETECTION
VRU FUNCTIONS
VOICE RECO
MODEM FUNCTIONS
DSP ENGINES
MAINFRAME (BILLING)
ISN FEATURES ENGINE VOICEMAIL PAGING FOLLOW ME SERVICES FAX
DATABASE ENGINE

FIG. 15

TDATA0 "EB66/860

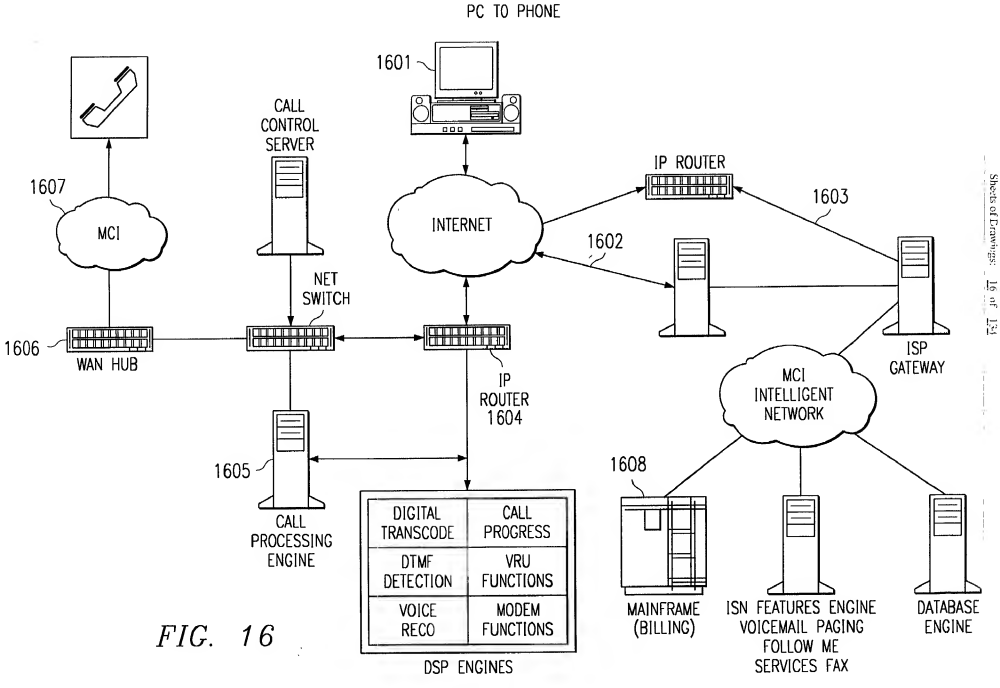


FIG. 16

Docket No.: YOR-96-256-C1 Application: YOR-96-256-C1
Title: A System and Method for Providing Assured Quality of Service in a Hybrid Network
Inventors: ELLIOT et al
Sheets of Drawings: 16 of 154

VON96-E86C060

FIG. 17

TONTSO"28624960

FIG. 18

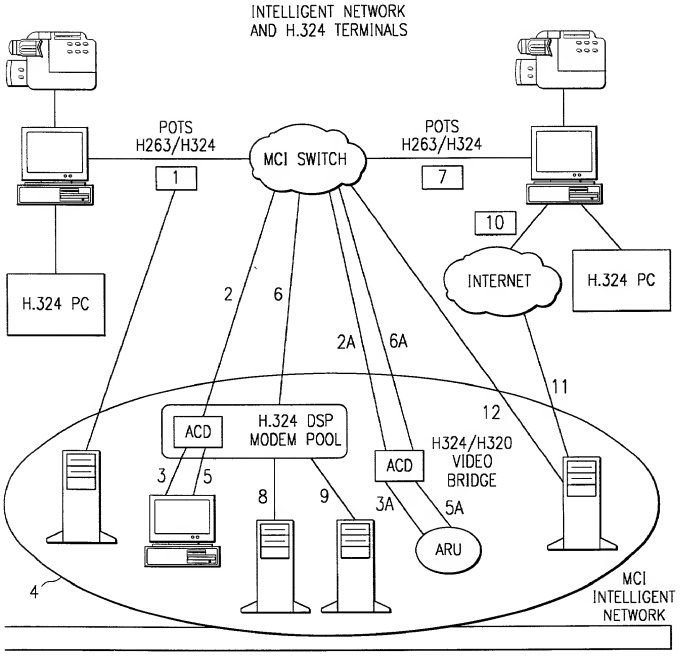

INTELLIGENT NETWORK
AND H.324 TERMINALS
POTS
H263/H324
MCI SWITCH
POTS
H263/H324
1
7
10
H.324 PC
2
6
INTERNET
H.324 PC
2A
6A
11
12
ACD
H.324 DSP
MODEM POOL
H324/H320
VIDEO
BRIDGE
ACD
3
5
8
9
3A
5A
ARU
4
MCI
INTELLIGENT
NETWORK

FIG. 19B

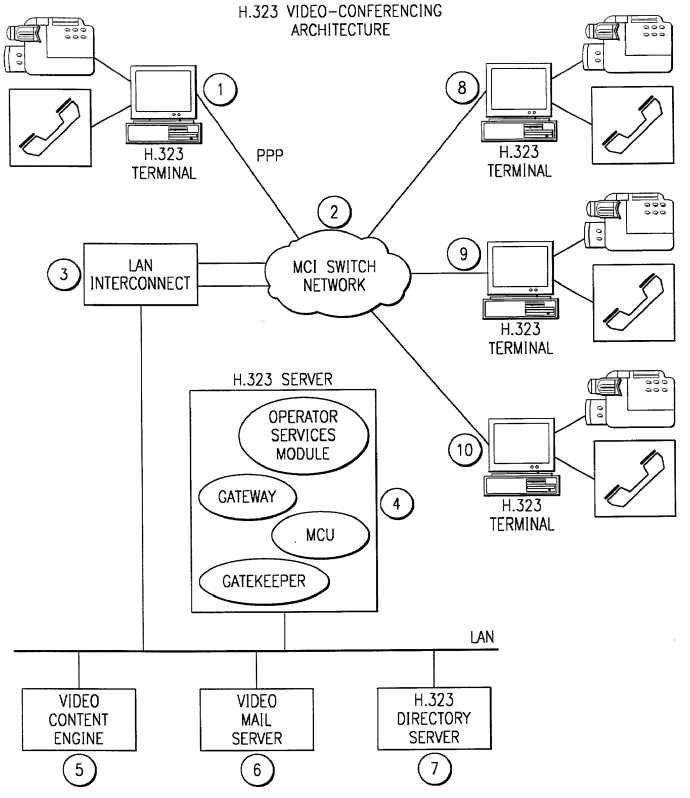

H.323 VIDEO–CONFERENCING ARCHITECTURE
1
H.323 TERMINAL
PPP
2
MCI SWITCH NETWORK
3
LAN INTERCONNECT
8
H.323 TERMINAL
9
H.323 TERMINAL
10
H.323 TERMINAL
H.323 SERVER
OPERATOR SERVICES MODULE
GATEWAY
MCU
GATEKEEPER
4
LAN
VIDEO CONTENT ENGINE
5
VIDEO MAIL SERVER
6
H.323 DIRECTORY SERVER
7

FIG. 19C

VSF ARCHITECTURE
VIDEO IN FROM MCU
H.320 VIDEO OPERATOR ENGINE
LIBRARY CONSOLE
H.261/H.263/ PREP
DIGITAL LIBRARY SERVER (INDEX)
DIGITAL LIBRARY OBJECT SERVER
MPEG CLIENT
PROXY CLIENT
INTERNET
H.263/IP CLIENT
MPEG CLIENT
H283/RTP SERVER
H263/IP SERVER
H.261/H.263/ MPEG
OTHER SOURCES OF
VIDEO BRIDGE
H.320 CLIENT
H.324 CLIENT
H320 SERVER
H324 SERVER

FIG. 19D

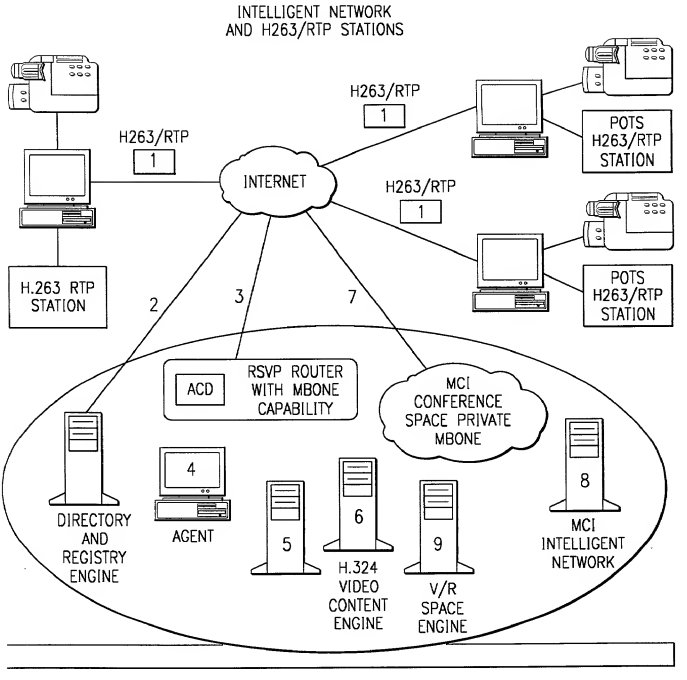

INTELLIGENT NETWORK
AND H263/RTP STATIONS
H263/RTP
1
H263/RTP
1
INTERNET
H263/RTP
1
POTS
H263/RTP
STATION
POTS
H263/RTP
STATION
H.263 RTP
STATION
2
3
7
ACD
RSVP ROUTER
WITH MBONE
CAPABILITY
MCI
CONFERENCE
SPACE PRIVATE
MBONE
4
8
DIRECTORY
AND
REGISTRY
ENGINE
AGENT
5
6
9
H.324
VIDEO
CONTENT
ENGINE
V/R
SPACE
ENGINE
MCI
INTELLIGENT
NETWORK

FIG. 19E

1900
1901
1902
1903
1905
FIRE WALL
1906
DOMAIN NAME SYSTEM
1910
INTERNET
1920
BILL
1922
PROV
1930
MSG
1932
VOICE
1934
DIRECTORY
1940
1941
SET TOP
1942
SET TOP
1943
SET TOP
1944
WEB
1945
ORDER
1950
1960
PSTN
1970
INP-DD
1972
DAP
1973
OP
1974
PROV
1975
ORDER
1976
BILL
1977
DIRECTORY
1978
CONFER
1979
AUTHOR/ AUTHEN
1980
PBX
1981
1982
1983
1990
ISN

FIG. 19F

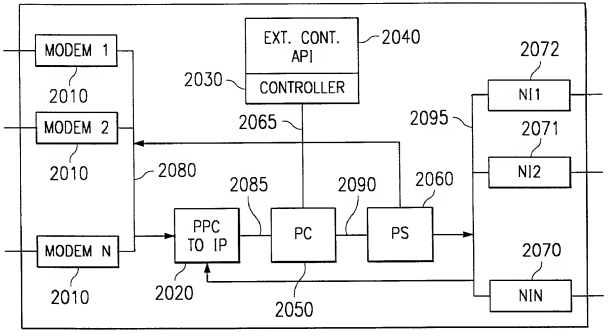


FIG. 19C

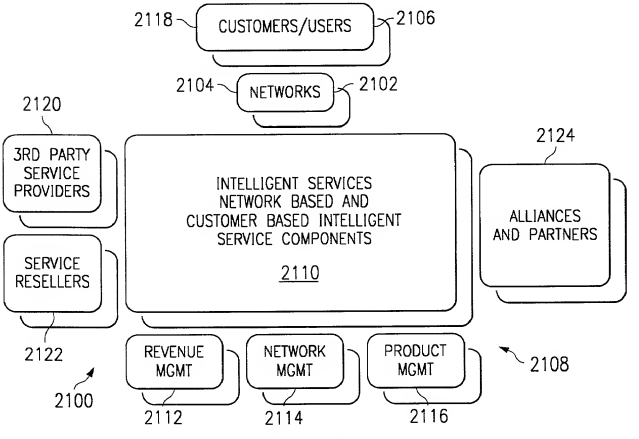


FIG. 20

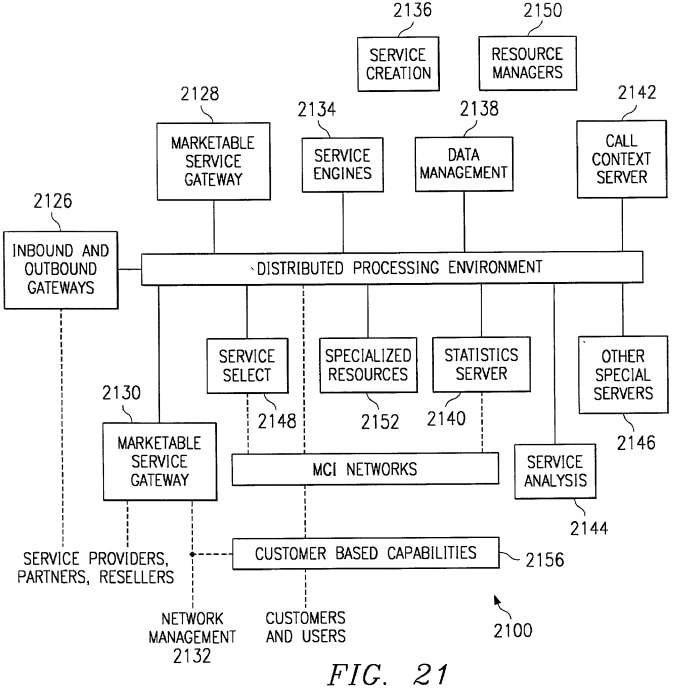

2136
SERVICE CREATION
2150
RESOURCE MANAGERS
2128
MARKETABLE SERVICE GATEWAY
2134
SERVICE ENGINES
2138
DATA MANAGEMENT
2142
CALL CONTEXT SERVER
2126
INBOUND AND OUTBOUND GATEWAYS
DISTRIBUTED PROCESSING ENVIRONMENT
SERVICE SELECT
2148
SPECIALIZED RESOURCES
2152
STATISTICS SERVER
2140
OTHER SPECIAL SERVERS
2146
2130
MARKETABLE SERVICE GATEWAY
MCI NETWORKS
SERVICE ANALYSIS
2144
CUSTOMER BASED CAPABILITIES
2156
SERVICE PROVIDERS, PARTNERS, RESELLERS
NETWORK MANAGEMENT
2132
CUSTOMERS AND USERS
2100

FIG. 21

Patent No.: 6,046,980 C1 Appln. No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheets of Drawings: 26 of 134

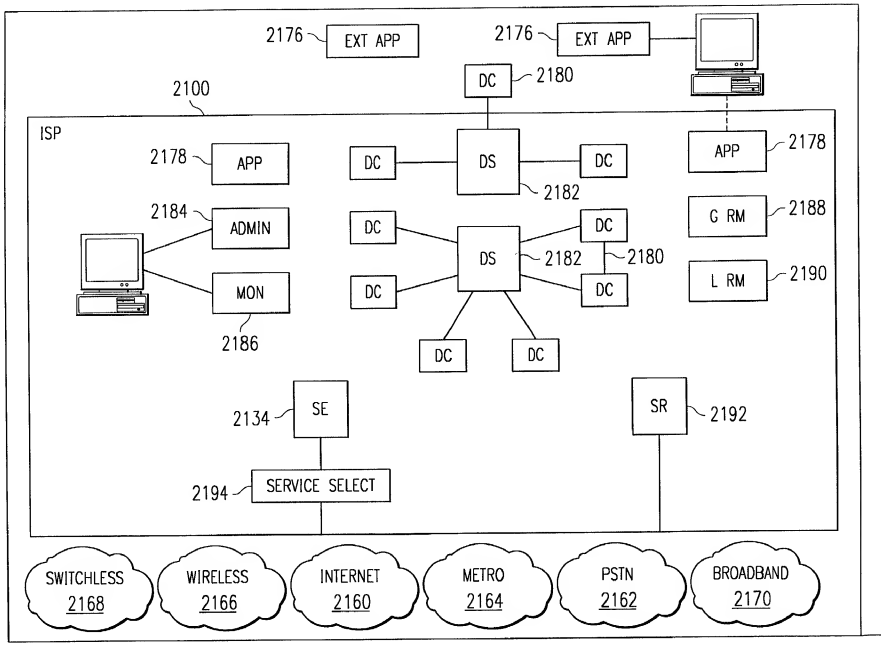


FIG. 22

10/750,866

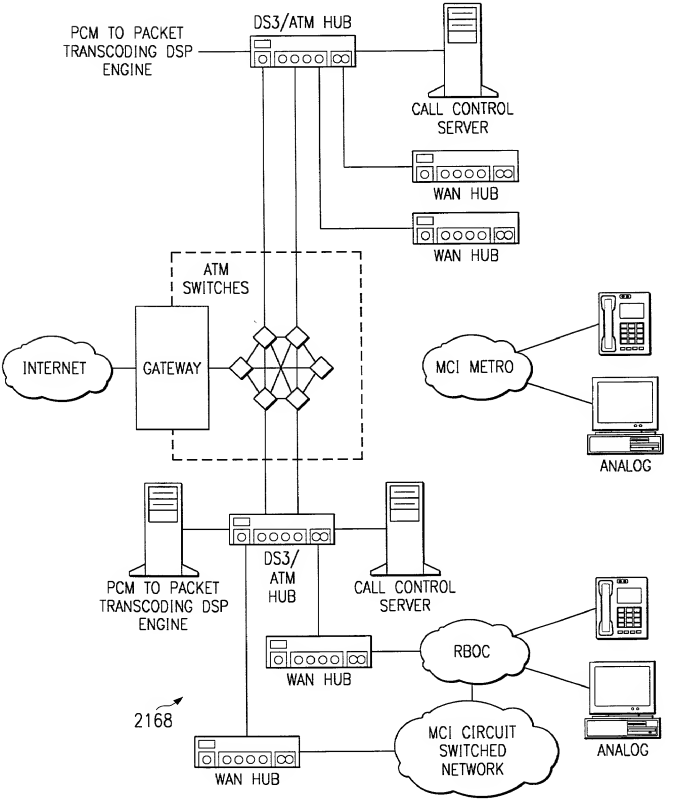


FIG. 23

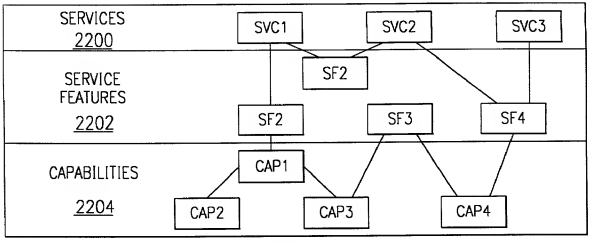


FIG. 24

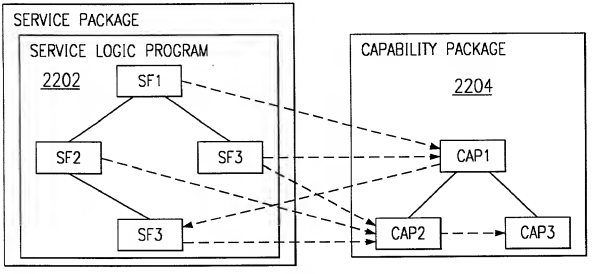


FIG. 25

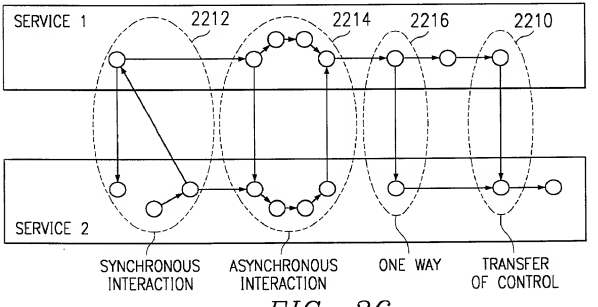


FIG. 26

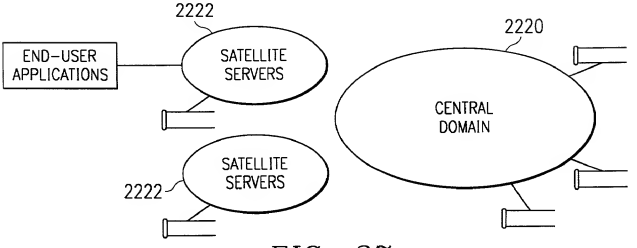

2222
END-USER APPLICATIONS
SATELLITE SERVERS
2220
CENTRAL DOMAIN
SATELLITE SERVERS
2222

FIG. 27

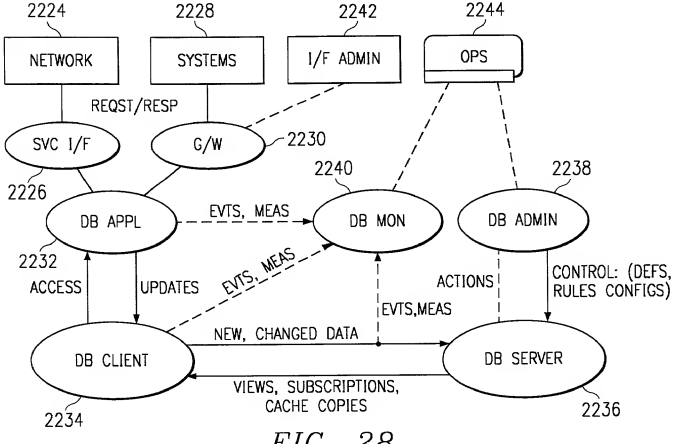

2224
NETWORK
2228
SYSTEMS
2242
I/F ADMIN
2244
OPS
REQST/RESP
SVC I/F
G/W
2230
2226
2240
2238
DB APPL
EVTS, MEAS
DB MON
DB ADMIN
2232
ACCESS
UPDATES
EVTS, MEAS
ACTIONS
CONTROL: (DEFS, RULES CONFIGS)
EVTS,MEAS
NEW, CHANGED DATA
DB CLIENT
DB SERVER
VIEWS, SUBSCRIPTIONS, CACHE COPIES
2234
2236

FIG. 28

ENTRY SITES
2251
2250
OE
GW
APP
CL
2230
2232
2234
CENTRAL DATA SITES
2254
SVR
MON
2236
2240
ADMIN SITES
2254
SECONDARY
ADM
2238
REMOTE OPS SITE
OPS
2244
LOCAL ADMIN
ADM
OPS
2244
2238
SATELLITE DATA SITES
2252
REMOTE APPLICATION SITE
APP
GW
2232
2230
CL
APP
GW
2234
2232
2230

FIG. 29

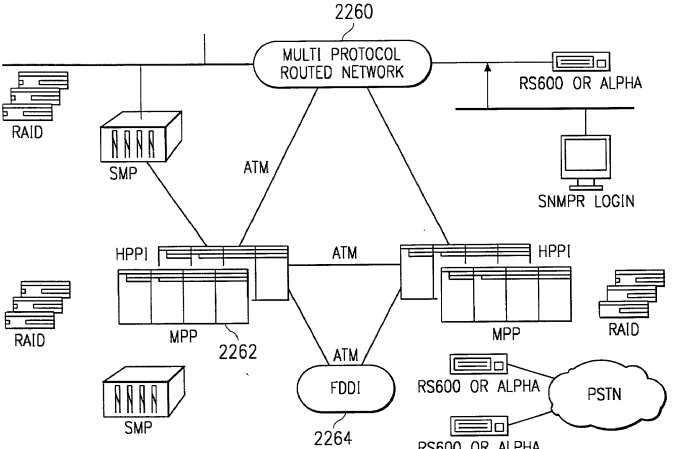

2260
MULTI PROTOCOL ROUTED NETWORK
RS600 OR ALPHA
RAID
SMP
ATM
SNMPR LOGIN
HPPI
ATM
HPPI
RAID
MPP
2262
MPP
RAID
ATM
FDDI
RS600 OR ALPHA
PSTN
SMP
2264
RS600 OR ALPHA

FIG. 30

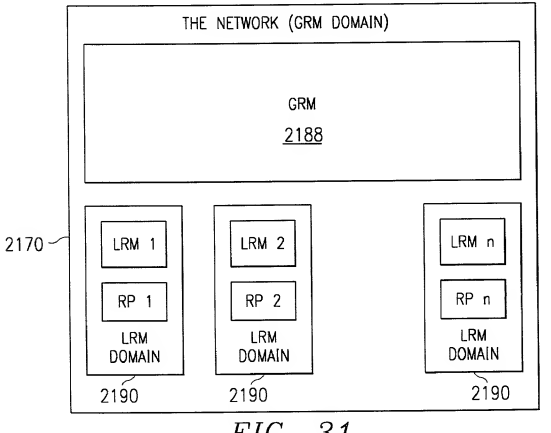

THE NETWORK (GRM DOMAIN)
GRM
2188
2170
LRM 1
RP 1
LRM DOMAIN
2190
LRM 2
RP 2
LRM DOMAIN
2190
LRM n
RP n
LRM DOMAIN
2190

FIG. 31

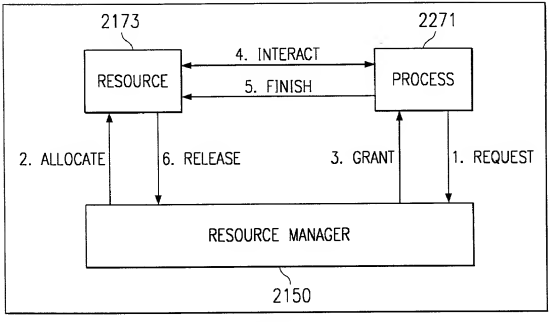

2173
2271
RESOURCE
4. INTERACT
5. FINISH
PROCESS
2. ALLOCATE
6. RELEASE
3. GRANT
1. REQUEST
RESOURCE MANAGER
2150

FIG. 32

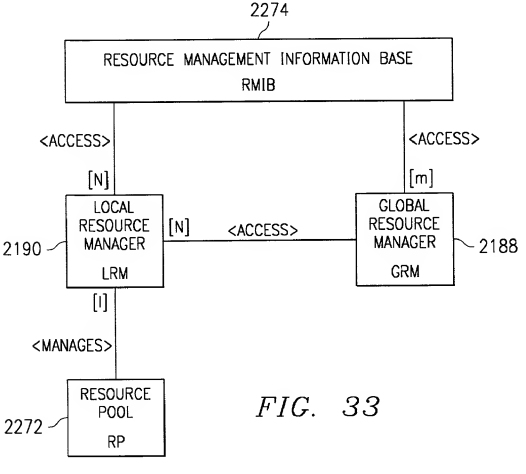

2274
RESOURCE MANAGEMENT INFORMATION BASE
RMIB
<ACCESS>
[N]
<ACCESS>
[m]
LOCAL
RESOURCE
MANAGER
LRM
2190
[N]
<ACCESS>
GLOBAL
RESOURCE
MANAGER
GRM
2188
[1]
<MANAGES>
RESOURCE
POOL
RP
2272

FIG. 33

2300
2312
CONFIGURATION
2314
MEASUREMENT
FAULT
PLANNING
2316
ACCOUNTING
2318
2302
2320
CONFIGURATION
2322
MEASUREMENT
FAULT
SERVICE MANAGEMENT
2324
ACCOUNTING
2326
2304
2328
CONFIGURATION
2330
MEASUREMENT
FAULT
NETWORK LAYER MANAGEMENT
2332
ACCOUNTING
2334
2306
2336
CONFIGURATION
2338
MEASUREMENT
FAULT
ELEMENT MANAGEMENT
2340
ACCOUNTING
2342
2308
2310
NIB
NIB
MANAGED NETWORK ELEMENT

FIG. 34

YOnT90"2365/960

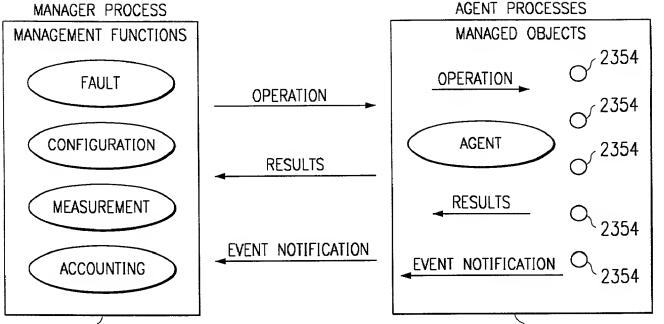


FIG. 35

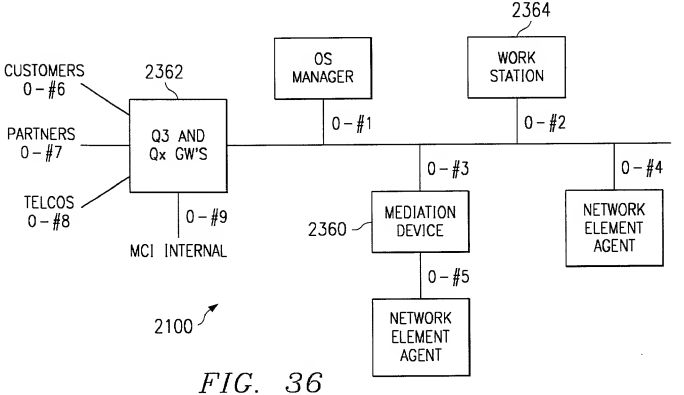


FIG. 36

Docket No.: VON-96-6-C1 Application No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOTT et al
Sheets of Drawings: 37 of 124

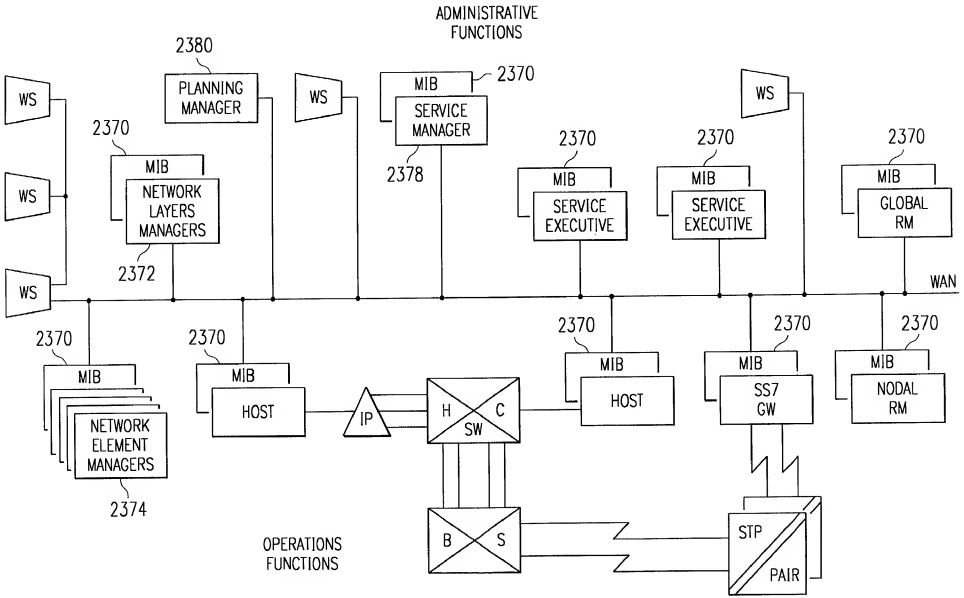


FIG. 37

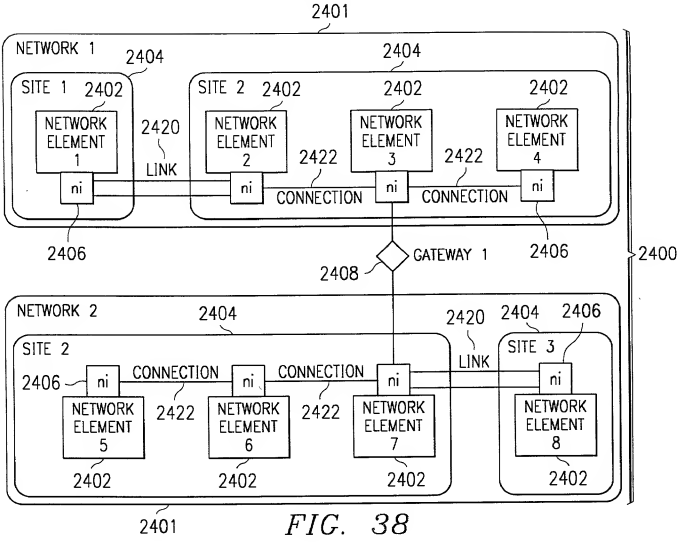

2401
NETWORK 1
2404
2404
SITE 1
2402
SITE 2
2402
2402
2402
NETWORK ELEMENT 1
2420
LINK
NETWORK ELEMENT 2
2422
NETWORK ELEMENT 3
2422
NETWORK ELEMENT 4
ni
ni
CONNECTION
ni
CONNECTION
ni
2406
2406
2408
GATEWAY 1
2400
NETWORK 2
2404
2420
2404
2406
SITE 2
LINK
SITE 3
2406
ni
CONNECTION
ni
CONNECTION
ni
ni
NETWORK ELEMENT 5
2422
NETWORK ELEMENT 6
2422
NETWORK ELEMENT 7
NETWORK ELEMENT 8
2402
2402
2402
2402
2401

FIG. 38

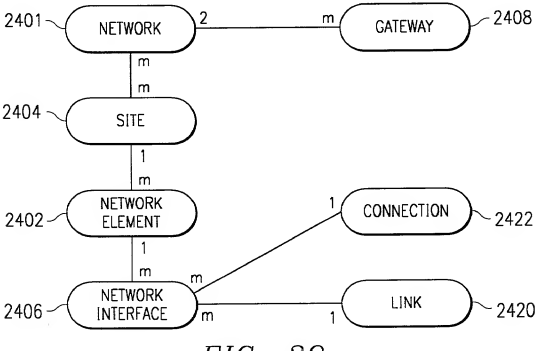

2401
NETWORK
2
m
GATEWAY
2408
m
m
2404
SITE
1
m
2402
NETWORK ELEMENT
1
CONNECTION
2422
1
m
m
2406
NETWORK INTERFACE
m
1
LINK
2420

FIG. 39

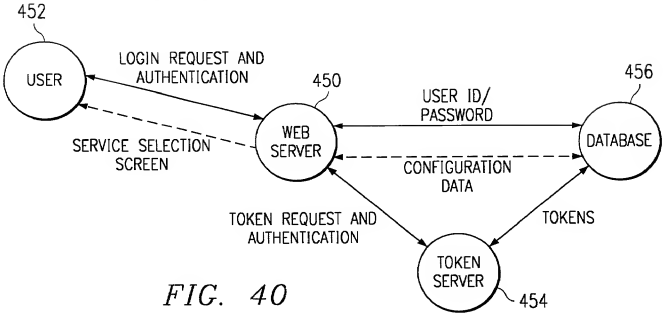

452
USER
LOGIN REQUEST AND AUTHENTICATION
450
WEB SERVER
SERVICE SELECTION SCREEN
USER ID/ PASSWORD
456
DATABASE
CONFIGURATION DATA
TOKEN REQUEST AND AUTHENTICATION
TOKENS
TOKEN SERVER
454

FIG. 40

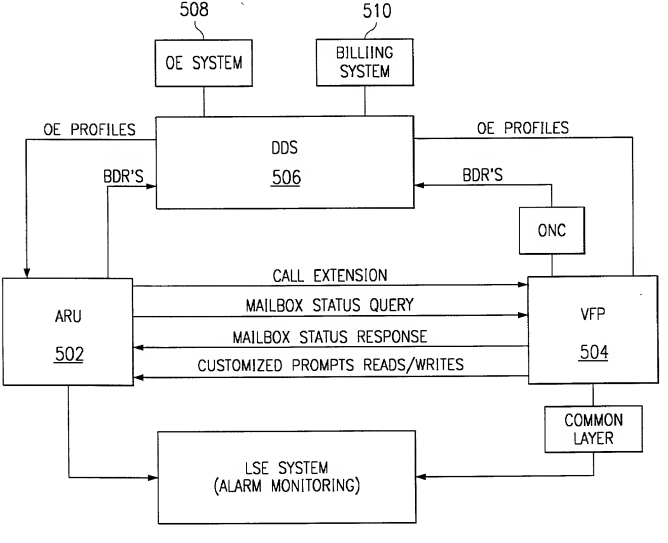
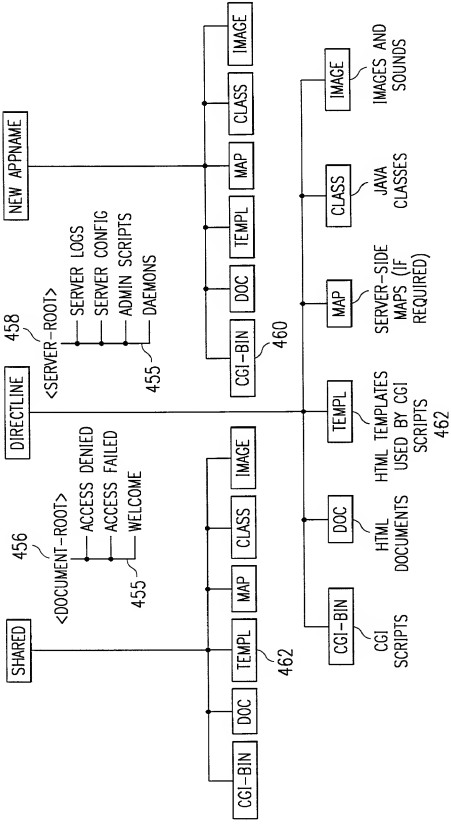

508
OE SYSTEM
510
BILLING SYSTEM
OE PROFILES
BDR'S
DDS
506
OE PROFILES
BDR'S
ONC
CALL EXTENSION
MAILBOX STATUS QUERY
MAILBOX STATUS RESPONSE
CUSTOMIZED PROMPTS READS/WRITES
ARU
502
VFP
504
COMMON LAYER
LSE SYSTEM
(ALARM MONITORING)

FIG. 43

10/790,886

FIG. 41



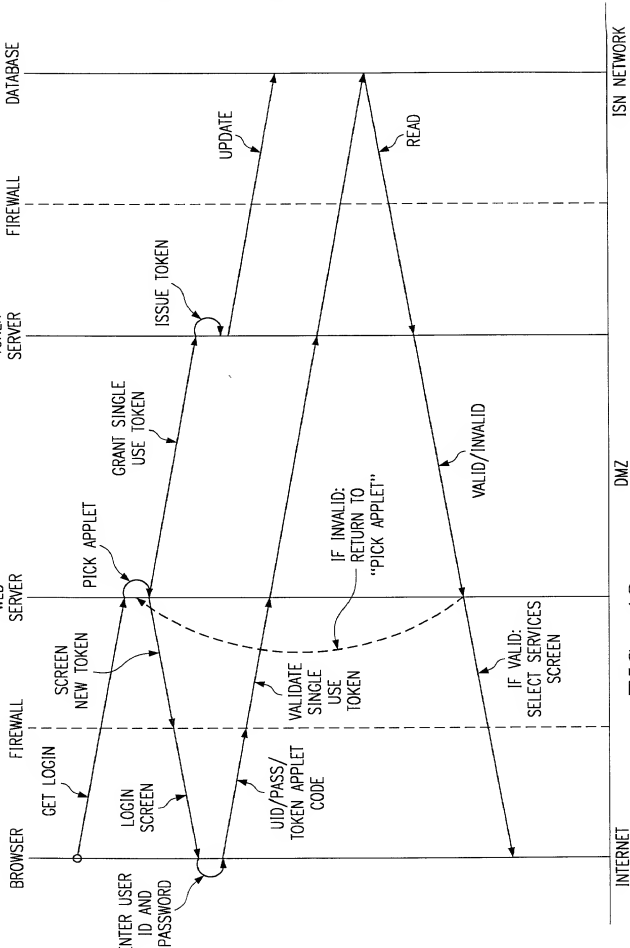


FIG. 42

10470*8864650

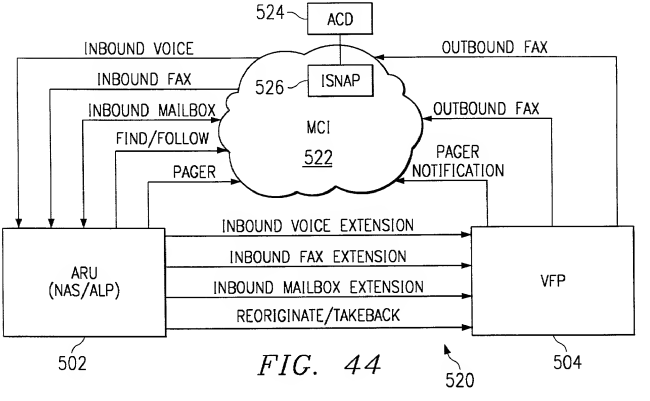

524
ACD
INBOUND VOICE
OUTBOUND FAX
INBOUND FAX
526
ISNAP
INBOUND MAILBOX
OUTBOUND FAX
MCI
522
FIND/FOLLOW
PAGER
NOTIFICATION
PAGER
INBOUND VOICE EXTENSION
INBOUND FAX EXTENSION
ARU
(NAS/ALP)
INBOUND MAILBOX EXTENSION
VFP
REORIGINATE/TAKEBACK
502
504
520

FIG. 44

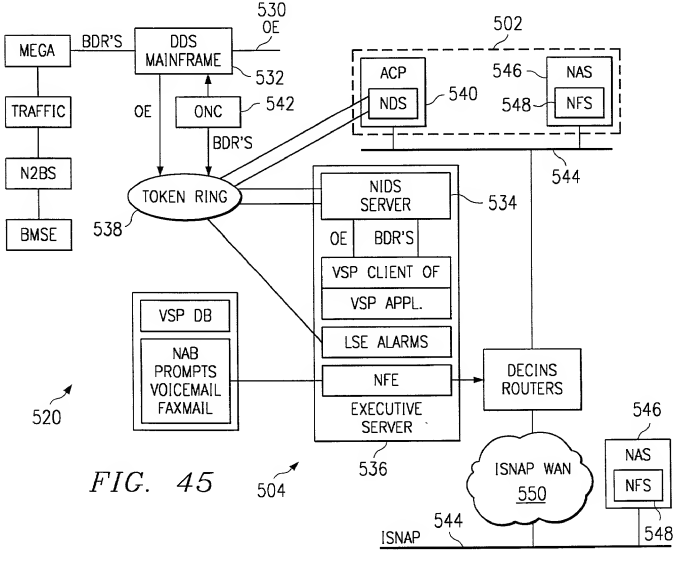

530
OE
502
MEGA
BDR'S
DDS
MAINFRAME
532
ACP
546
NAS
NDS
540
548
NFS
TRAFFIC
OE
ONC
542
BDR'S
N2BS
544
TOKEN RING
NIDS
SERVER
534
538
BMSE
OE
BDR'S
VSP CLIENT OF
VSP APPL.
VSP DB
LSE ALARMS
NAB
PROMPTS
VOICEMAIL
FAXMAIL
NFE
DECINS
ROUTERS
EXECUTIVE
SERVER
520
546
NAS
NFS
ISNAP WAN
550
536
504
544
ISNAP
548

FIG. 45

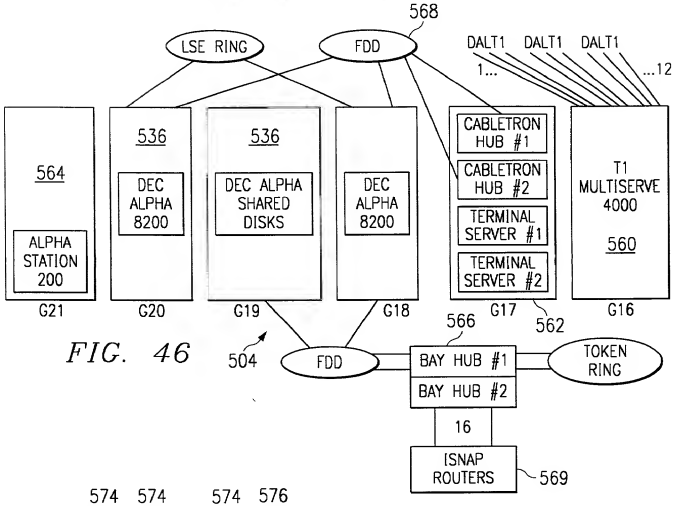


FIG. 46

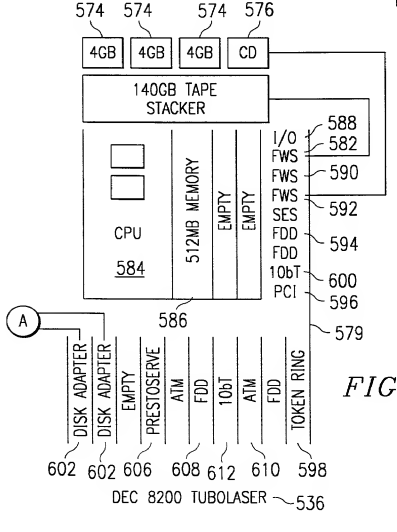


FIG. 48B

EXHIBIT 2065/860

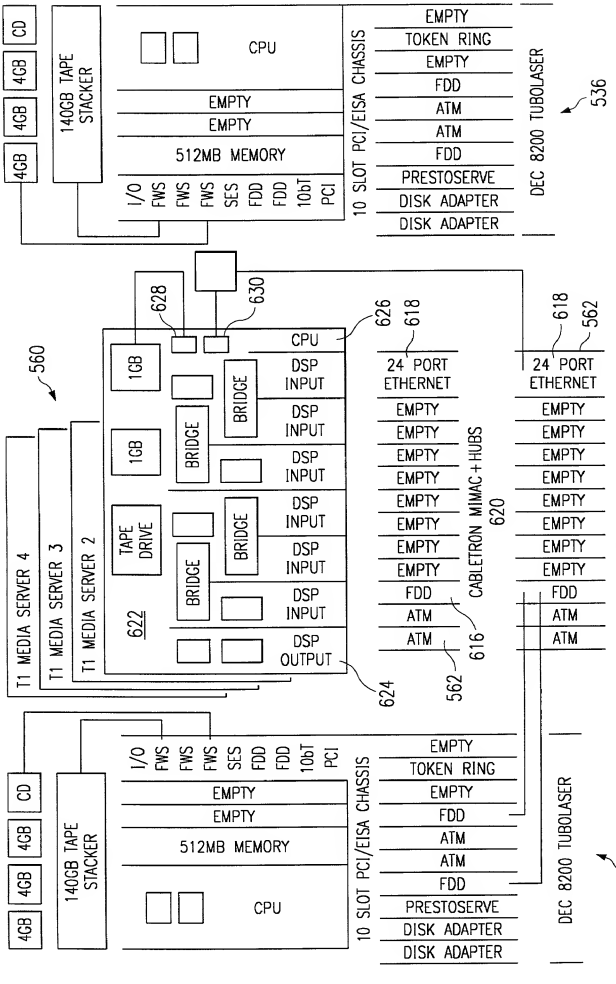

CD
4GB
4GB
4GB
140GB TAPE STACKER
CPU
EMPTY
EMPTY
512MB MEMORY
I/O FWS FWS FWS SES FDD FDD 10bT PCI
10 SLOT PCI/EISA CHASSIS
EMPTY
TOKEN RING
EMPTY
FDD
ATM
ATM
FDD
PRESTOSERVE
DISK ADAPTER
DISK ADAPTER
DEC 8200 TUBOLASER
536
560
T1 MEDIA SERVER 4
T1 MEDIA SERVER 3
T1 MEDIA SERVER 2
622
TAPE DRIVE
1GB
1GB
BRIDGE
BRIDGE
BRIDGE
BRIDGE
CPU
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP OUTPUT
628
630
626
618
24 PORT ETHERNET
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
FDD
ATM
ATM
CABLETRON MIMAC + HUBS
620
616
562
624
618
562
24 PORT ETHERNET
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
FDD
ATM
ATM
CD
4GB
4GB
4GB
140GB TAPE STACKER
I/O FWS FWS FWS SES FDD FDD 10bT PCI
EMPTY
EMPTY
512MB MEMORY
CPU
10 SLOT PCI/EISA CHASSIS
EMPTY
TOKEN RING
EMPTY
FDD
ATM
ATM
FDD
PRESTOSERVE
DISK ADAPTER
DISK ADAPTER
DEC 8200 TUBOLASER
536

FIG. 47

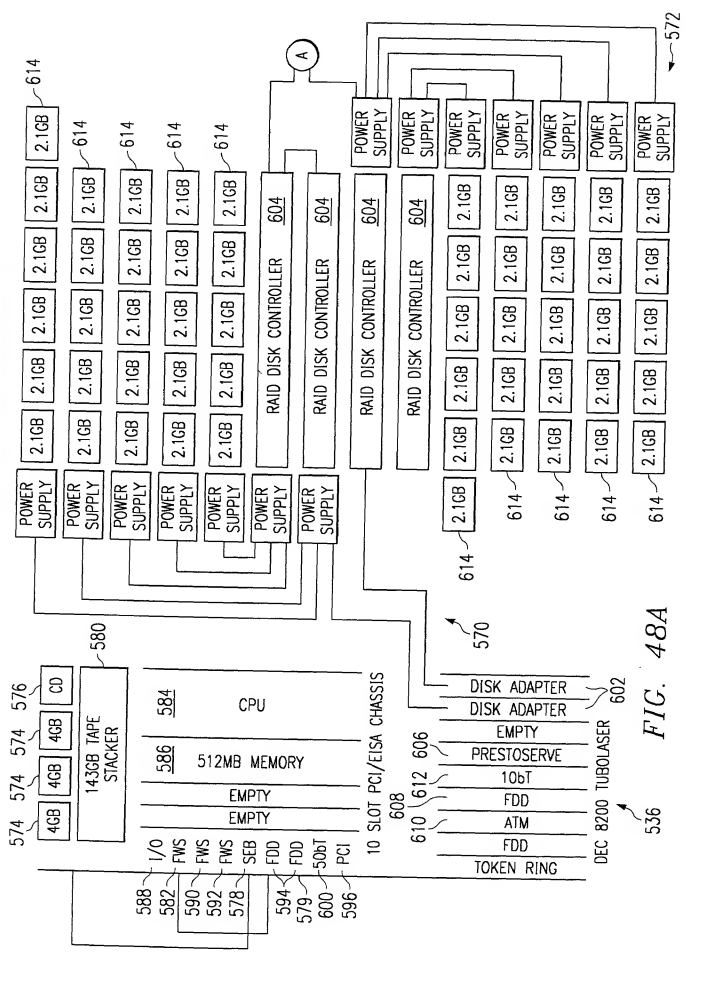

536
DEC 8200 TURBOLASER
TOKEN RING
FDD
ATM
FDD
10bT
PRESTOSERVE
EMPTY
DISK ADAPTER
DISK ADAPTER
10 SLOT PCI/EISA CHASSIS
608
610
612
606
602
570
614
RAID DISK CONTROLLER 604
POWER SUPPLY
2.1GB
572
A
588
582
590
592
578
594
579
600
596
I/O
FWS
FWS
FWS
SEB
FDD
FDD
50bT
PCI
EMPTY
EMPTY
512MB MEMORY
586
CPU
584
143GB TAPE STACKER
580
4GB
4GB
CD
574
576

FIG. 48A

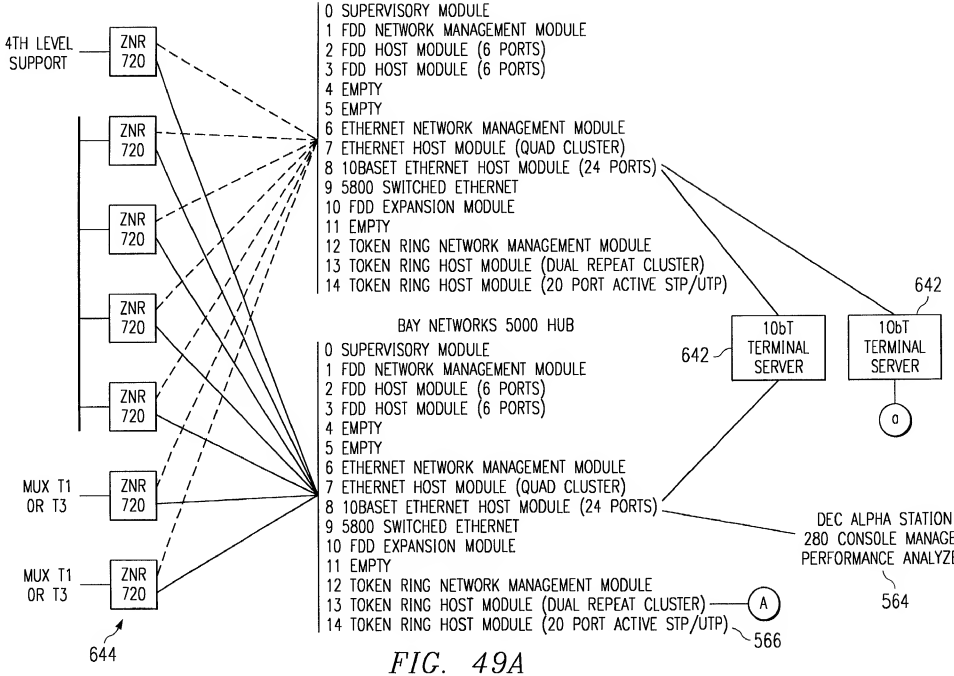

4TH LEVEL SUPPORT
ZNR 720
ZNR 720
ZNR 720
ZNR 720
ZNR 720
MUX T1 OR T3
ZNR 720
MUX T1 OR T3
ZNR 720
644
0 SUPERVISORY MODULE
1 FDD NETWORK MANAGEMENT MODULE
2 FDD HOST MODULE (6 PORTS)
3 FDD HOST MODULE (6 PORTS)
4 EMPTY
5 EMPTY
6 ETHERNET NETWORK MANAGEMENT MODULE
7 ETHERNET HOST MODULE (QUAD CLUSTER)
8 10BASET ETHERNET HOST MODULE (24 PORTS)
9 5800 SWITCHED ETHERNET
10 FDD EXPANSION MODULE
11 EMPTY
12 TOKEN RING NETWORK MANAGEMENT MODULE
13 TOKEN RING HOST MODULE (DUAL REPEAT CLUSTER)
14 TOKEN RING HOST MODULE (20 PORT ACTIVE STP/UTP)
BAY NETWORKS 5000 HUB
0 SUPERVISORY MODULE
1 FDD NETWORK MANAGEMENT MODULE
2 FDD HOST MODULE (6 PORTS)
3 FDD HOST MODULE (6 PORTS)
4 EMPTY
5 EMPTY
6 ETHERNET NETWORK MANAGEMENT MODULE
7 ETHERNET HOST MODULE (QUAD CLUSTER)
8 10BASET ETHERNET HOST MODULE (24 PORTS)
9 5800 SWITCHED ETHERNET
10 FDD EXPANSION MODULE
11 EMPTY
12 TOKEN RING NETWORK MANAGEMENT MODULE
13 TOKEN RING HOST MODULE (DUAL REPEAT CLUSTER)
14 TOKEN RING HOST MODULE (20 PORT ACTIVE STP/UTP)
A
566
642
10bT TERMINAL SERVER
642
10bT TERMINAL SERVER
642
0
DEC ALPHA STATION
280 CONSOLE MANAGER
PERFORMANCE ANALYZER
564

FIG. 49A

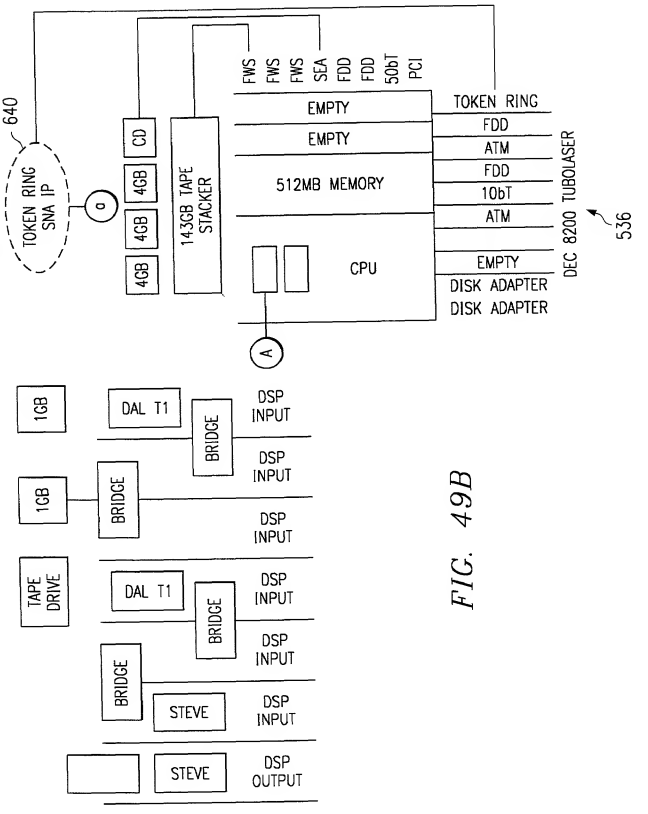

640
TOKEN RING SNA IP
CD
4GB
4GB
4GB
14.3GB TAPE STACKER
FWS
FWS
FWS
SFA
FDD
FDD
50bT
PCI
EMPTY
EMPTY
512MB MEMORY
CPU
TOKEN RING
FDD
ATM
FDD
10bT
ATM
EMPTY
DISK ADAPTER
DISK ADAPTER
DEC 8200 TUBOLASER
536
A
1GB
1GB
TAPE DRIVE
BRIDGE
BRIDGE
DAL T1
BRIDGE
DAL T1
BRIDGE
STEVE
STEVE
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP OUTPUT

FIG. 49B

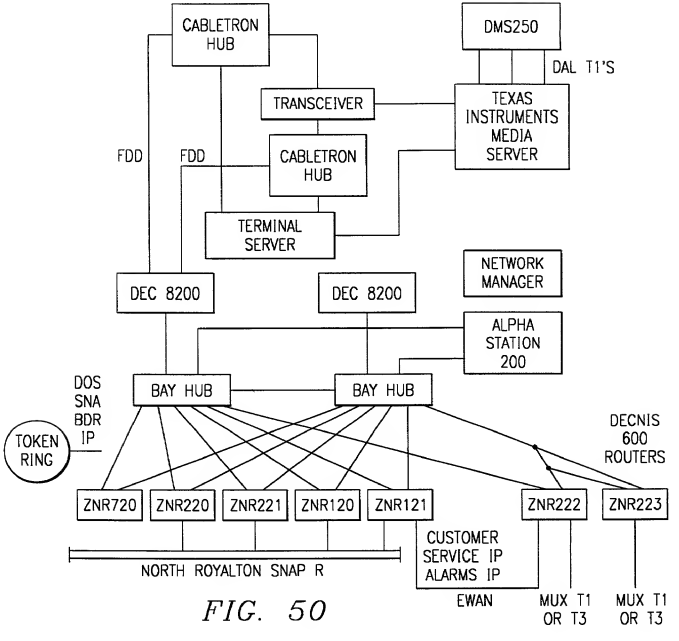

CABLETRON HUB
DMS250
DAL T1'S
TRANSCEIVER
TEXAS INSTRUMENTS MEDIA SERVER
FDD
FDD
CABLETRON HUB
TERMINAL SERVER
NETWORK MANAGER
DEC 8200
DEC 8200
ALPHA STATION 200
DOS SNA BDR IP
BAY HUB
BAY HUB
TOKEN RING
DECNIS 600 ROUTERS
ZNR720
ZNR220
ZNR221
ZNR120
ZNR121
ZNR222
ZNR223
CUSTOMER SERVICE IP ALARMS IP
NORTH ROYALTON SNAP R
EWAN
MUX T1 OR T3
MUX T1 OR T3

FIG. 50

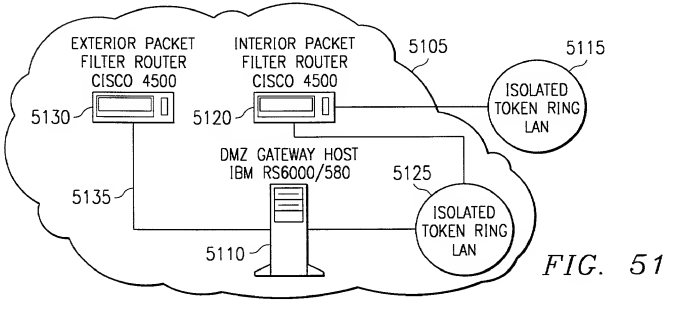

EXTERIOR PACKET FILTER ROUTER CISCO 4500
INTERIOR PACKET FILTER ROUTER CISCO 4500
5105
5115
ISOLATED TOKEN RING LAN
5130
5120
DMZ GATEWAY HOST IBM RS6000/580
5125
5135
ISOLATED TOKEN RING LAN
5110

FIG. 51

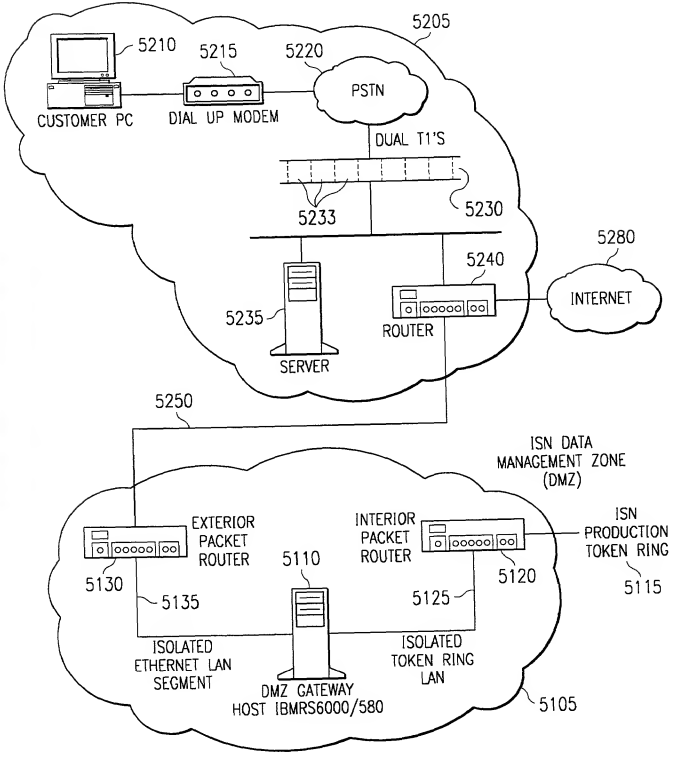

5205
5210
5215
5220
PSTN
CUSTOMER PC
DIAL UP MODEM
DUAL T1'S
5233
5230
5280
5240
INTERNET
5235
ROUTER
SERVER
5250
ISN DATA MANAGEMENT ZONE (DMZ)
EXTERIOR PACKET ROUTER
INTERIOR PACKET ROUTER
ISN PRODUCTION TOKEN RING
5110
5130
5120
5115
5135
5125
ISOLATED ETHERNET LAN SEGMENT
ISOLATED TOKEN RING LAN
DMZ GATEWAY HOST IBMRS6000/580
5105

FIG. 52A

TOAT05 "22552.0800

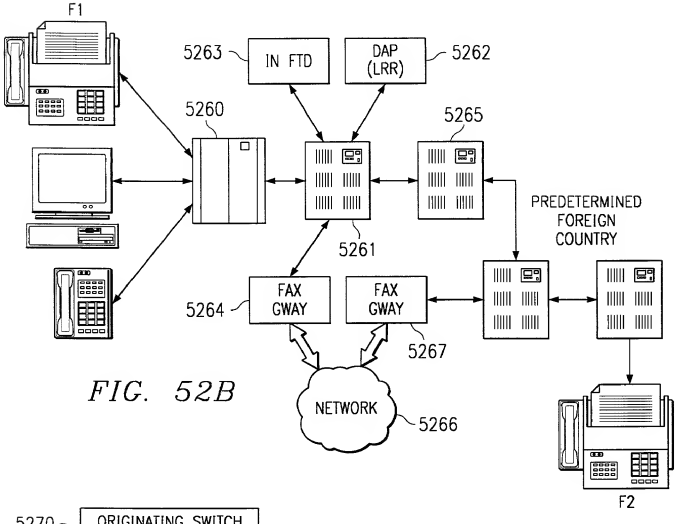


FIG. 52B

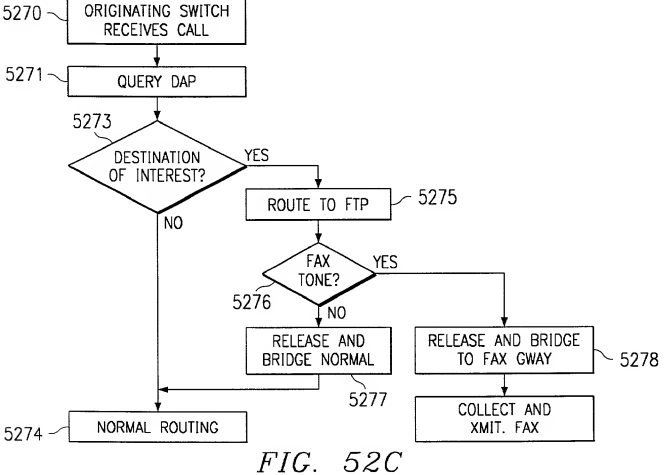


FIG. 52C

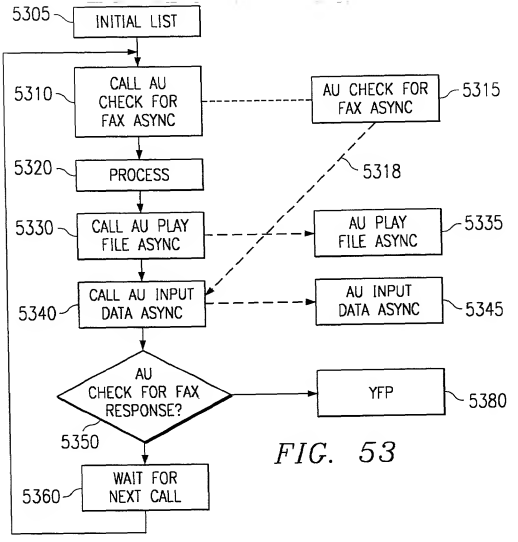

5305
INITIAL LIST
5310
CALL AU CHECK FOR FAX ASYNC
AU CHECK FOR FAX ASYNC
5315
5318
5320
PROCESS
5330
CALL AU PLAY FILE ASYNC
AU PLAY FILE ASYNC
5335
5340
CALL AU INPUT DATA ASYNC
AU INPUT DATA ASYNC
5345
AU CHECK FOR FAX RESPONSE?
5350
YFP
5380
5360
WAIT FOR NEXT CALL

FIG. 53

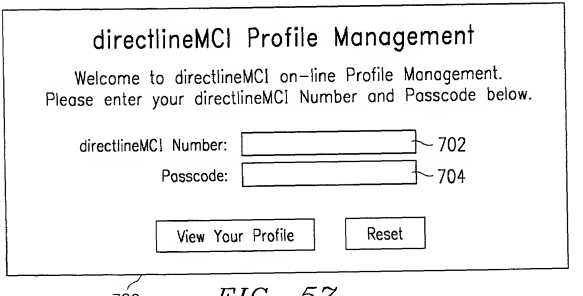

directlineMCI Profile Management
Welcome to directlineMCI on-line Profile Management.
Please enter your directlineMCI Number and Passcode below.
directlineMCI Number:
702
Passcode:
704
View Your Profile
Reset
700

FIG. 57

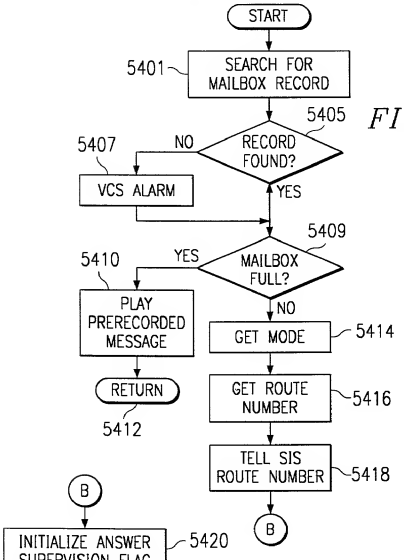


FIG. 54A

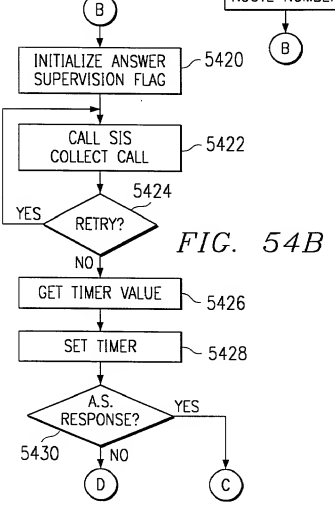


FIG. 54B

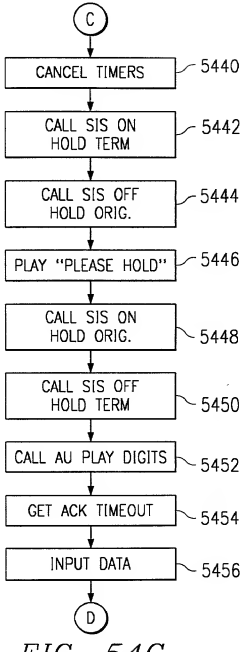


FIG. 54C

10/17/98 5865/850

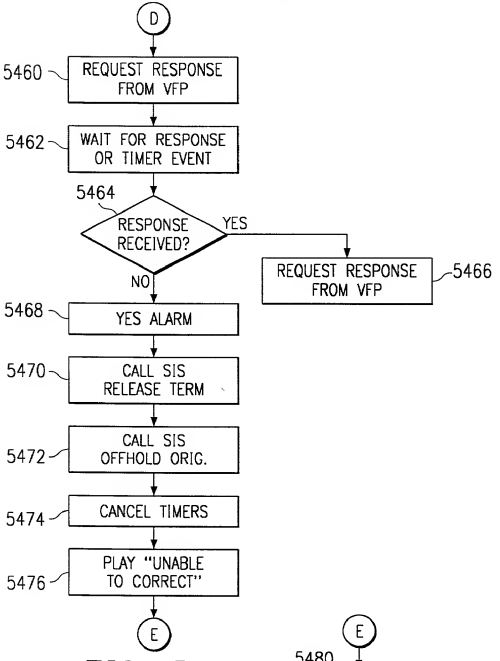


FIG. 54D

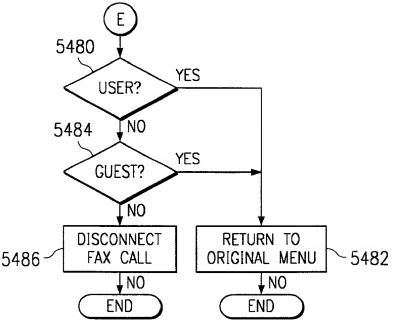


FIG. 54E

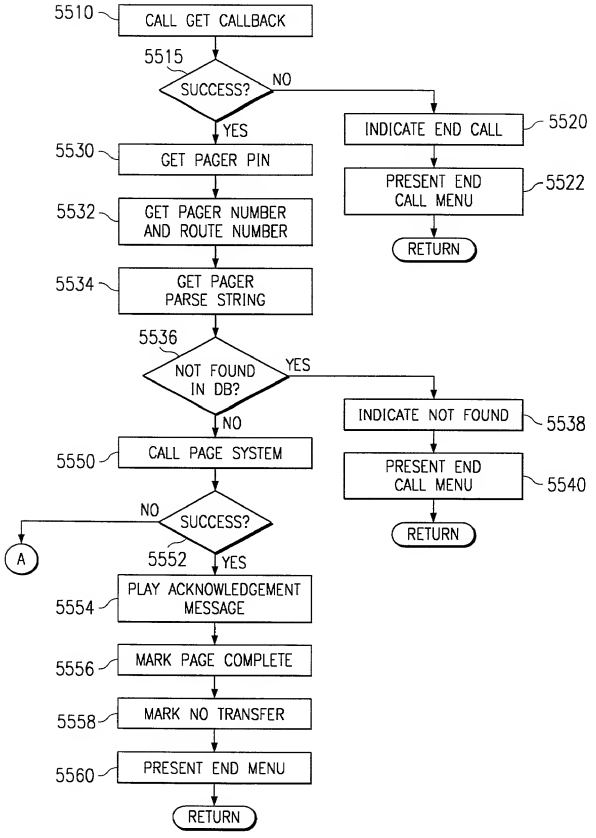

5510
CALL GET CALLBACK
5515
SUCCESS?
NO
YES
INDICATE END CALL
5520
PRESENT END CALL MENU
5522
RETURN
5530
GET PAGER PIN
5532
GET PAGER NUMBER AND ROUTE NUMBER
5534
GET PAGER PARSE STRING
5536
NOT FOUND IN DB?
YES
NO
INDICATE NOT FOUND
5538
PRESENT END CALL MENU
5540
RETURN
5550
CALL PAGE SYSTEM
NO
SUCCESS?
5552
YES
A
5554
PLAY ACKNOWLEDGEMENT MESSAGE
5556
MARK PAGE COMPLETE
5558
MARK NO TRANSFER
5560
PRESENT END MENU
RETURN

FIG. 55A

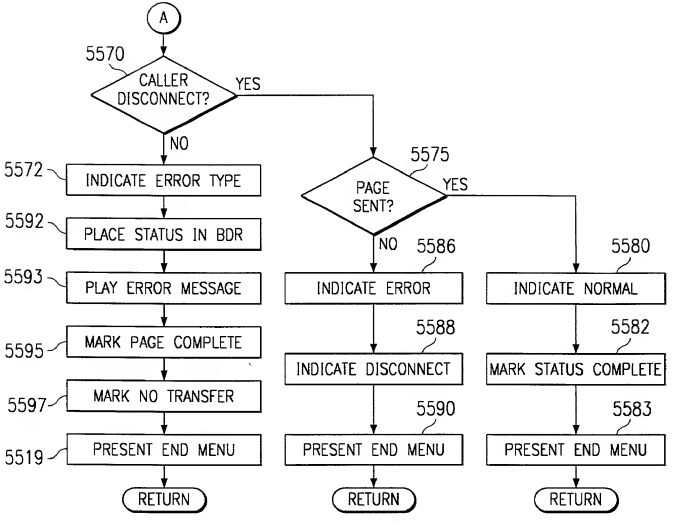


FIG. 55B

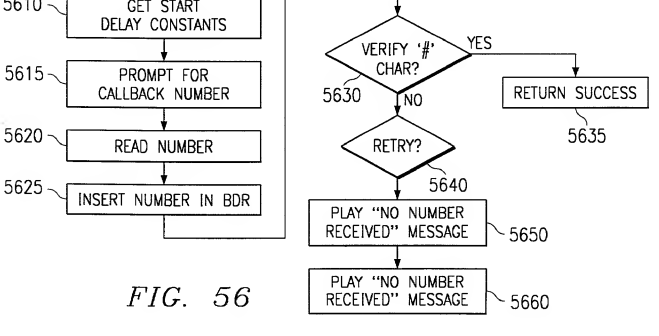


FIG. 56

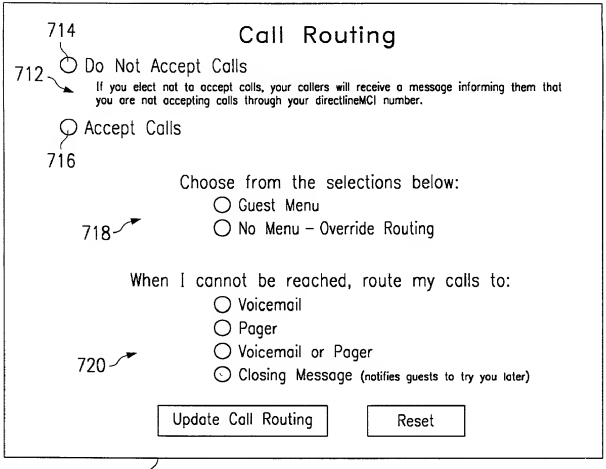


FIG. 58

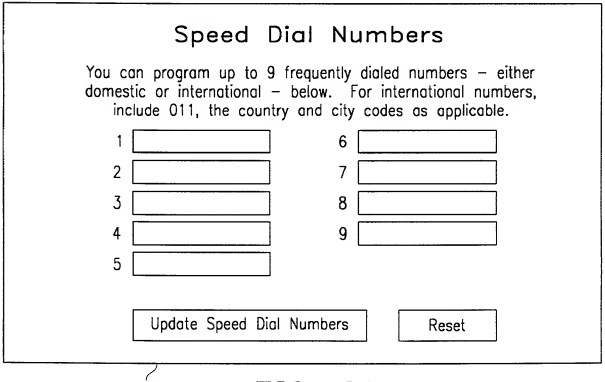


FIG. 61

VON-96-046-CI 09827986

EXHIBIT 1006 PAGE 2980

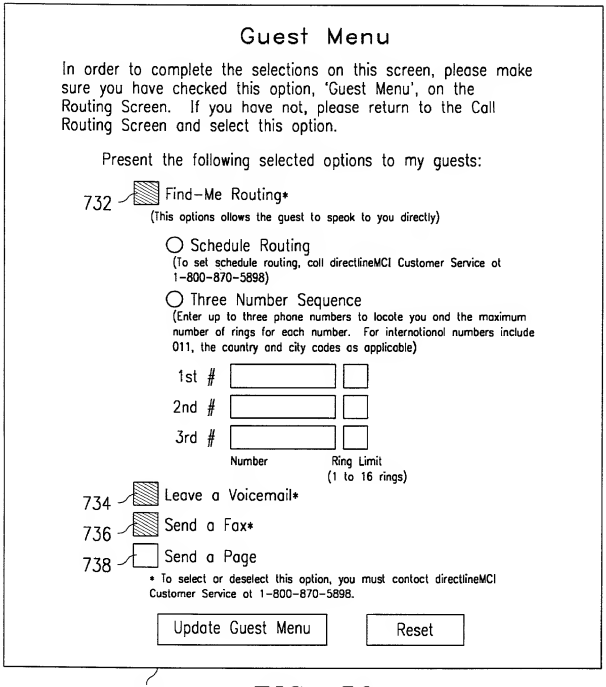
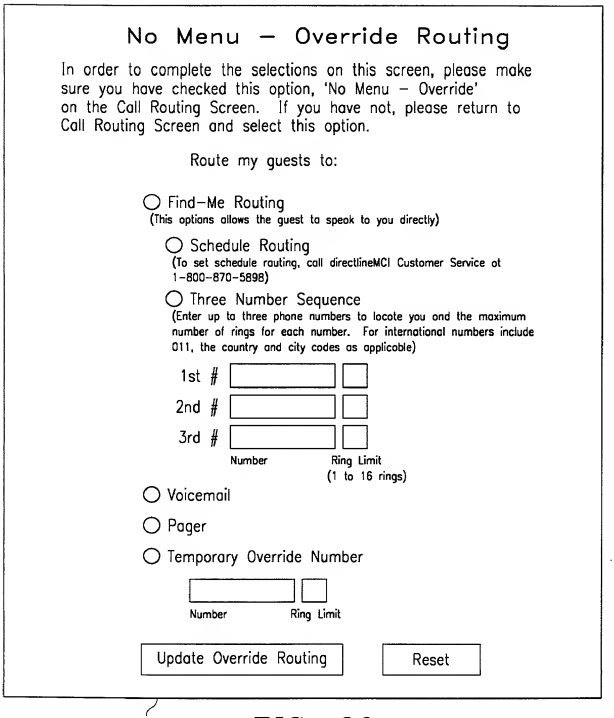


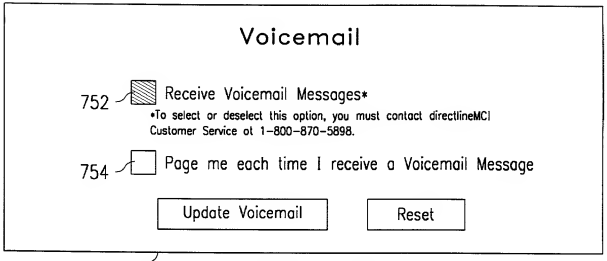
FIG. 59

10490-0864910

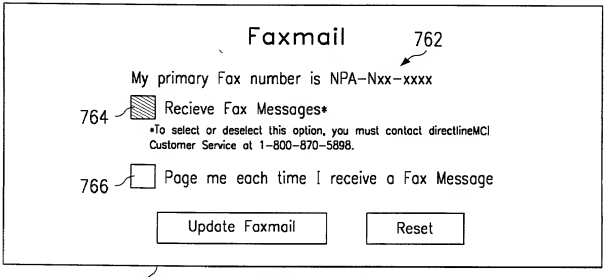


740

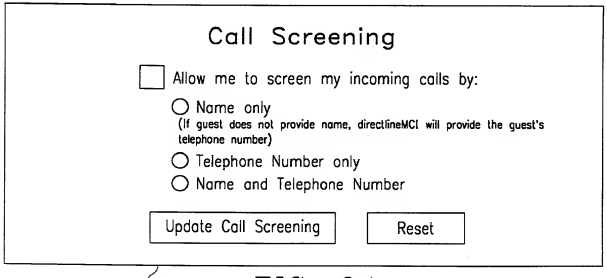
FIG. 60



750 *FIG. 62*



760 *FIG. 63*



770 *FIG. 64*

10/1990,780/2960

Error...

Your login attempt has failed; please try again.

If you are unable to login, contact directlineMCI Customer Service at 1-800-870-5898

OK

780

FIG. 65

Thonk you!
Your _____ hove been successfully updated.

OK

782

FIG. 66

Error...

Your 1st Number may not be blank. – *display only when this situation occurs*

The number(s) you have entered:
NPA-Nxx-xxxx
NPA-Nxx-xxxx
...
NPA-Nxx-xxxx

are either blocked or invalid. Please check the number(s) and attempt to enter again. If you need further assistance, contact directlineMCI Customer Service at 1-800-870-5898

OK

784

FIG. 67

10490 5965860

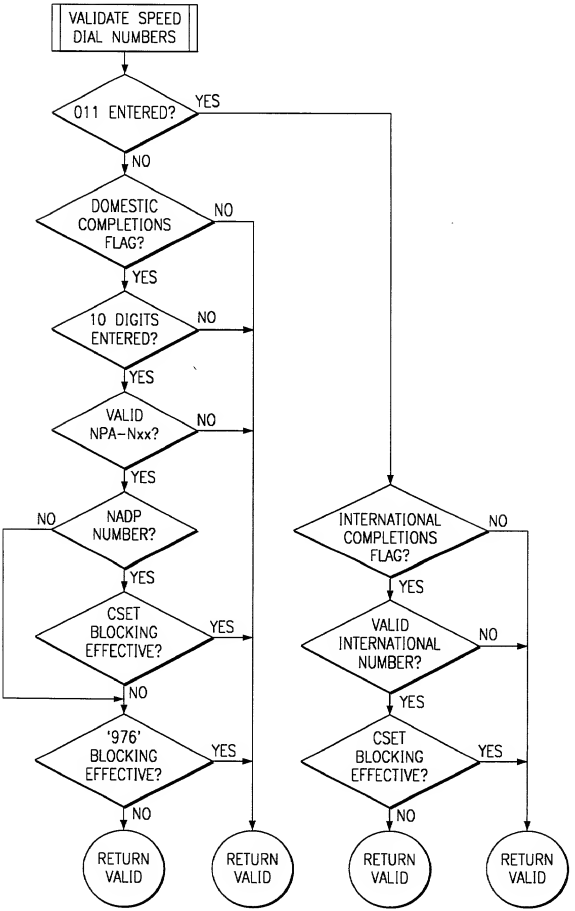

VALIDATE SPEED DIAL NUMBERS
011 ENTERED?
YES
NO
DOMESTIC COMPLETIONS FLAG?
NO
YES
10 DIGITS ENTERED?
NO
YES
VALID NPA-Nxx?
NO
YES
NADP NUMBER?
NO
YES
CSET BLOCKING EFFECTIVE?
YES
NO
'976' BLOCKING EFFECTIVE?
YES
NO
RETURN VALID
RETURN VALID
INTERNATIONAL COMPLETIONS FLAG?
NO
YES
VALID INTERNATIONAL NUMBER?
NO
YES
CSET BLOCKING EFFECTIVE?
YES
NO
RETURN VALID
RETURN VALID

FIG. 68

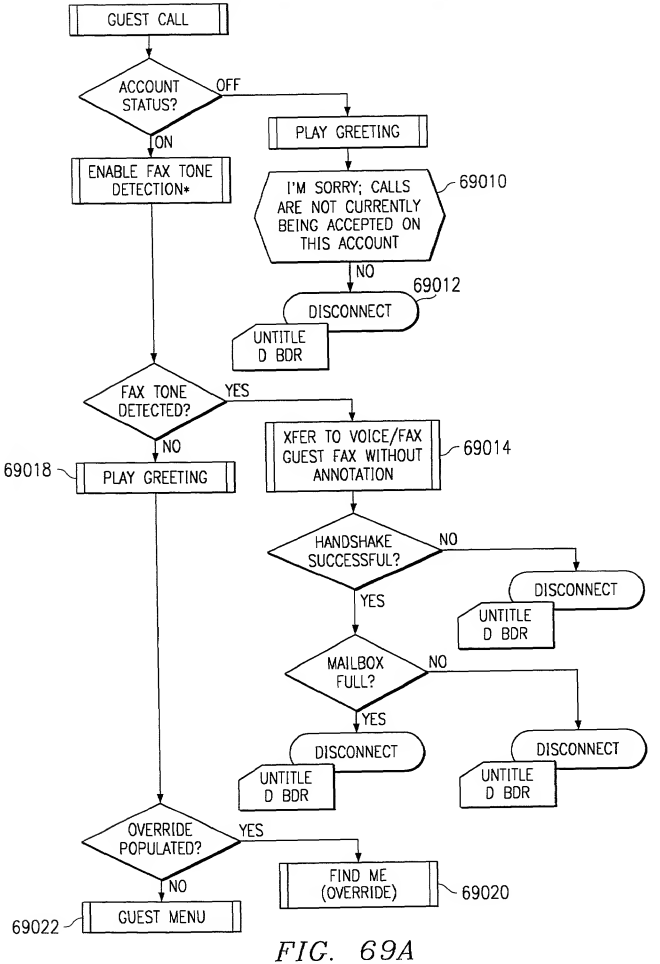

GUEST CALL
ACCOUNT STATUS?
OFF
ON
PLAY GREETING
ENABLE FAX TONE DETECTION*
I'M SORRY; CALLS ARE NOT CURRENTLY BEING ACCEPTED ON THIS ACCOUNT
69010
NO
69012
DISCONNECT
UNTITLED BDR
FAX TONE DETECTED?
YES
NO
XFER TO VOICE/FAX GUEST FAX WITHOUT ANNOTATION
69014
69018
PLAY GREETING
HANDSHAKE SUCCESSFUL?
NO
DISCONNECT
UNTITLED BDR
YES
MAILBOX FULL?
NO
YES
DISCONNECT
UNTITLED BDR
DISCONNECT
UNTITLED BDR
OVERRIDE POPULATED?
YES
NO
FIND ME (OVERRIDE)
69020
69022
GUEST MENU

FIG. 69A

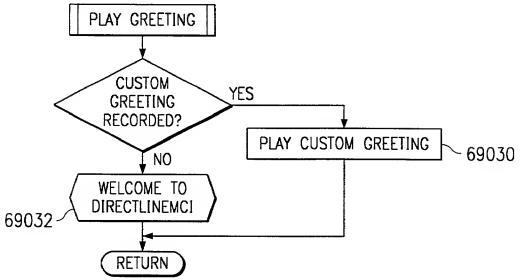


FIG. 69B

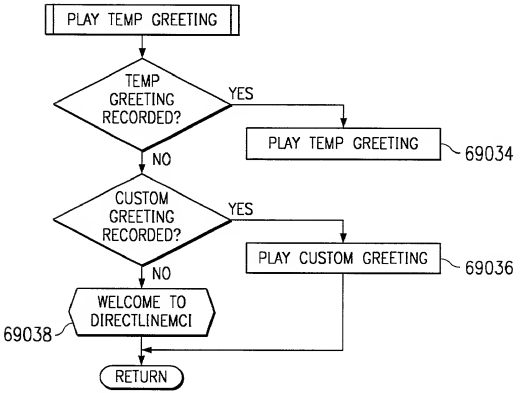


FIG. 69C

08759383.061401

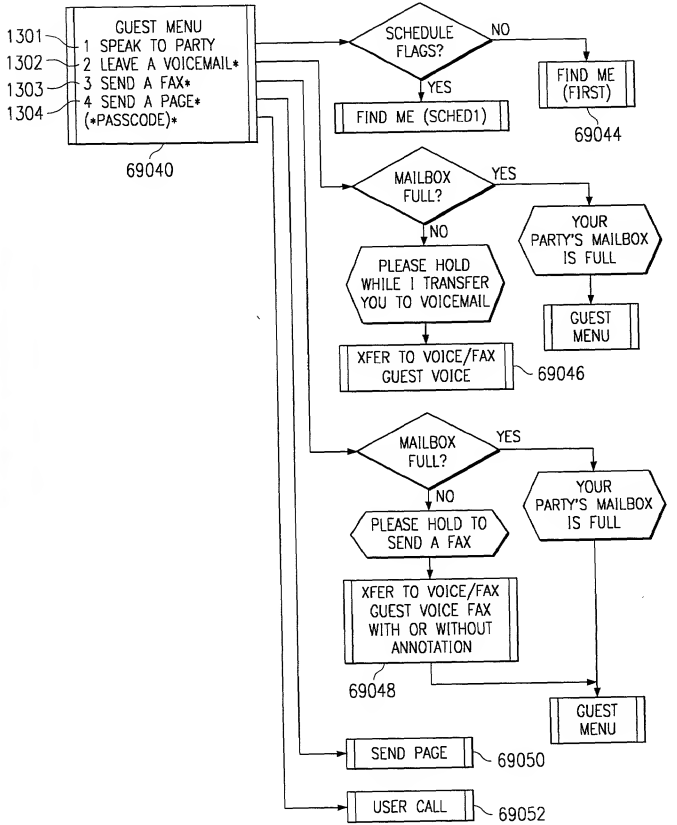

GUEST MENU
1 SPEAK TO PARTY
2 LEAVE A VOICEMAIL*
3 SEND A FAX*
4 SEND A PAGE*
(*PASSCODE)*
1301
1302
1303
1304
69040
SCHEDULE FLAGS?
NO
YES
FIND ME (SCHED1)
FIND ME (FIRST)
69044
MAILBOX FULL?
YES
NO
YOUR PARTY'S MAILBOX IS FULL
GUEST MENU
PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
XFER TO VOICE/FAX GUEST VOICE
69046
MAILBOX FULL?
YES
NO
YOUR PARTY'S MAILBOX IS FULL
PLEASE HOLD TO SEND A FAX
XFER TO VOICE/FAX GUEST VOICE FAX WITH OR WITHOUT ANNOTATION
69048
GUEST MENU
SEND PAGE
69050
USER CALL
69052

FIG. 69D

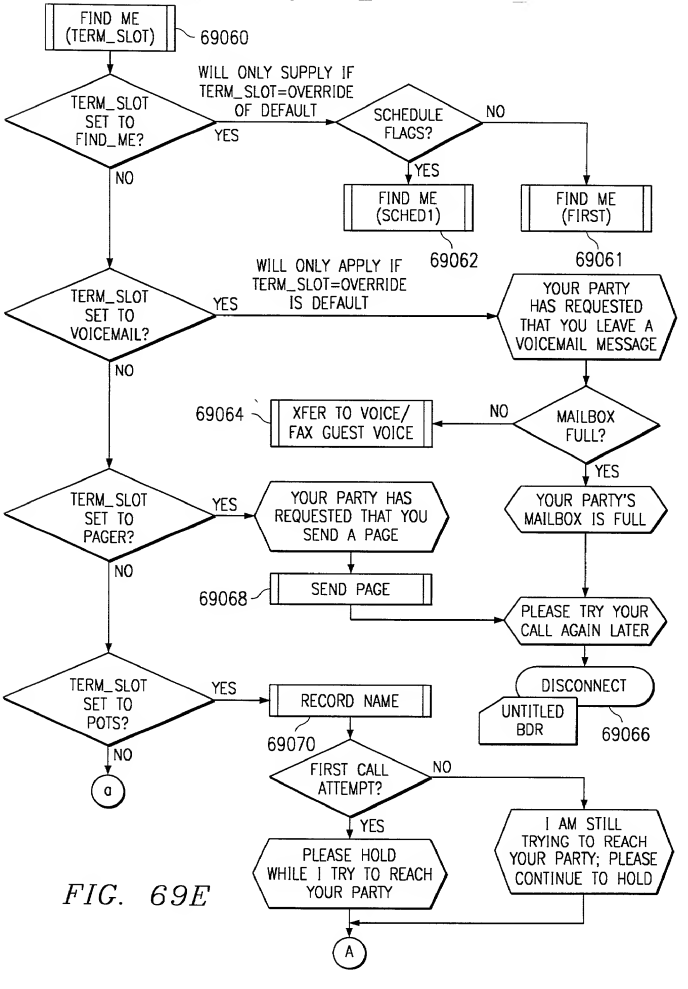

FIND ME (TERM_SLOT)
69060
TERM_SLOT SET TO FIND_ME?
YES
NO
WILL ONLY SUPPLY IF TERM_SLOT=OVERRIDE OF DEFAULT
SCHEDULE FLAGS?
NO
YES
FIND ME (SCHED1)
69062
FIND ME (FIRST)
69061
TERM_SLOT SET TO VOICEMAIL?
YES
NO
WILL ONLY APPLY IF TERM_SLOT=OVERRIDE IS DEFAULT
YOUR PARTY HAS REQUESTED THAT YOU LEAVE A VOICEMAIL MESSAGE
MAILBOX FULL?
NO
YES
69064
XFER TO VOICE/ FAX GUEST VOICE
TERM_SLOT SET TO PAGER?
YES
NO
YOUR PARTY HAS REQUESTED THAT YOU SEND A PAGE
YOUR PARTY'S MAILBOX IS FULL
69068
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER
TERM_SLOT SET TO POTS?
YES
NO
RECORD NAME
69070
DISCONNECT
UNTITLED BDR
69066
a
FIRST CALL ATTEMPT?
NO
YES
PLEASE HOLD WHILE I TRY TO REACH YOUR PARTY
I AM STILL TRYING TO REACH YOUR PARTY; PLEASE CONTINUE TO HOLD
A

FIG. 69E

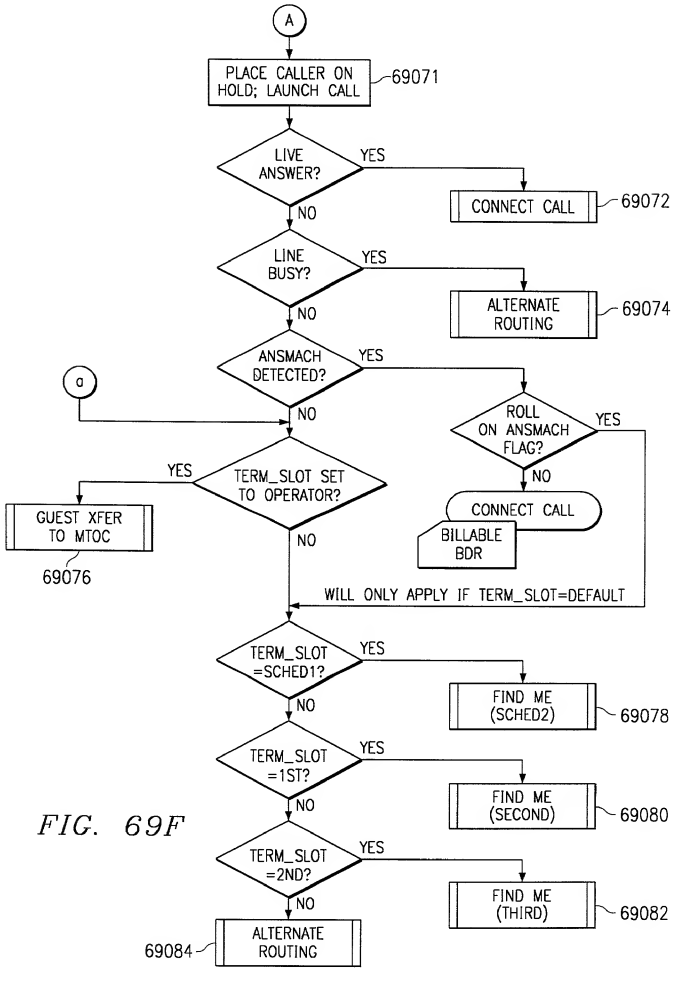

A
PLACE CALLER ON HOLD; LAUNCH CALL
69071
LIVE ANSWER?
YES
CONNECT CALL
69072
NO
LINE BUSY?
YES
ALTERNATE ROUTING
69074
NO
ANSMACH DETECTED?
YES
a
NO
ROLL ON ANSMACH FLAG?
YES
NO
TERM_SLOT SET TO OPERATOR?
YES
CONNECT CALL
BILLABLE BDR
GUEST XFER TO MTOC
69076
NO
WILL ONLY APPLY IF TERM_SLOT=DEFAULT
TERM_SLOT =SCHED1?
YES
FIND ME (SCHED2)
69078
NO
TERM_SLOT =1ST?
YES
FIND ME (SECOND)
69080
NO
TERM_SLOT =2ND?
YES
FIND ME (THIRD)
69082
NO
ALTERNATE ROUTING
69084

FIG. 69F

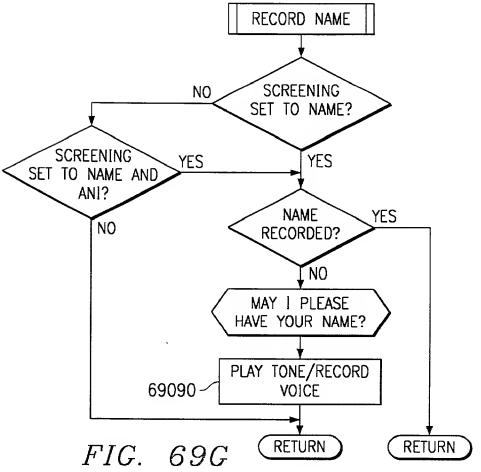


FIG. 69G

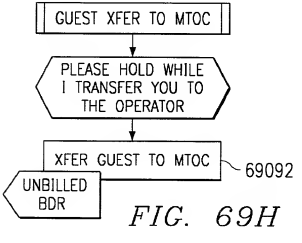


FIG. 69H

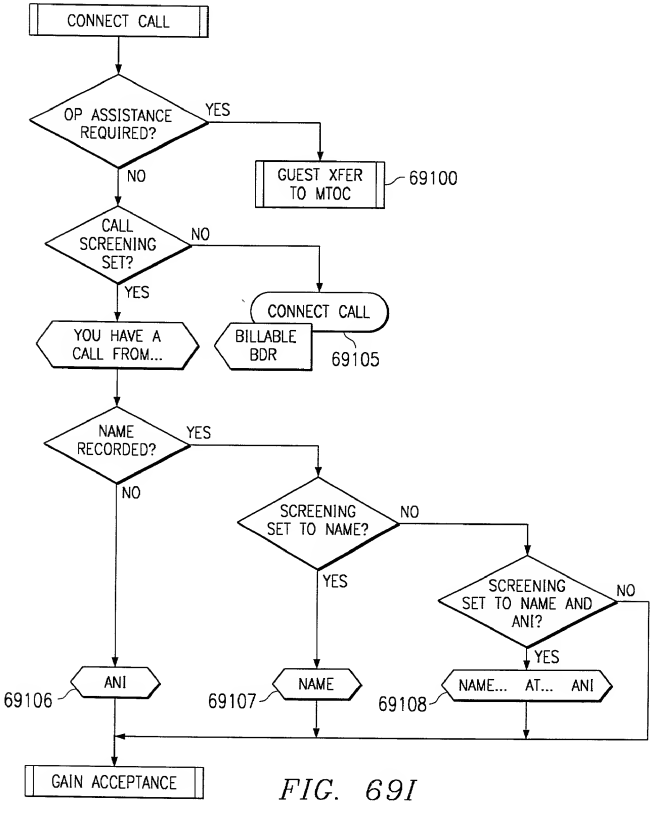

CONNECT CALL
OP ASSISTANCE REQUIRED?
YES
NO
GUEST XFER TO MTOC
69100
CALL SCREENING SET?
NO
YES
CONNECT CALL
BILLABLE BDR
69105
YOU HAVE A CALL FROM...
NAME RECORDED?
YES
NO
SCREENING SET TO NAME?
NO
YES
SCREENING SET TO NAME AND ANI?
NO
YES
ANI
69106
NAME
69107
NAME... AT... ANI
69108
GAIN ACCEPTANCE

FIG. 691

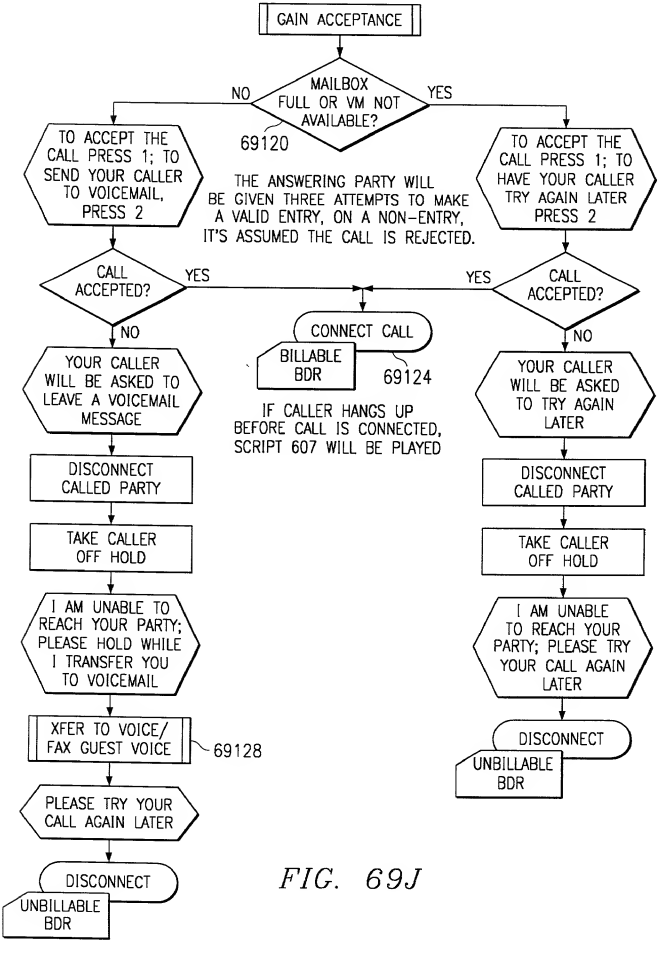

GAIN ACCEPTANCE
MAILBOX FULL OR VM NOT AVAILABLE?
NO
YES
69120
TO ACCEPT THE CALL PRESS 1; TO SEND YOUR CALLER TO VOICEMAIL, PRESS 2
TO ACCEPT THE CALL PRESS 1; TO HAVE YOUR CALLER TRY AGAIN LATER PRESS 2
THE ANSWERING PARTY WILL BE GIVEN THREE ATTEMPTS TO MAKE A VALID ENTRY, ON A NON-ENTRY, IT'S ASSUMED THE CALL IS REJECTED.
CALL ACCEPTED?
YES
NO
YES
CALL ACCEPTED?
NO
CONNECT CALL
BILLABLE BDR
69124
IF CALLER HANGS UP BEFORE CALL IS CONNECTED, SCRIPT 607 WILL BE PLAYED
YOUR CALLER WILL BE ASKED TO LEAVE A VOICEMAIL MESSAGE
YOUR CALLER WILL BE ASKED TO TRY AGAIN LATER
DISCONNECT CALLED PARTY
DISCONNECT CALLED PARTY
TAKE CALLER OFF HOLD
TAKE CALLER OFF HOLD
I AM UNABLE TO REACH YOUR PARTY; PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
I AM UNABLE TO REACH YOUR PARTY; PLEASE TRY YOUR CALL AGAIN LATER
XFER TO VOICE/ FAX GUEST VOICE
69128
DISCONNECT UNBILLABLE BDR
PLEASE TRY YOUR CALL AGAIN LATER
DISCONNECT UNBILLABLE BDR

FIG. 69J

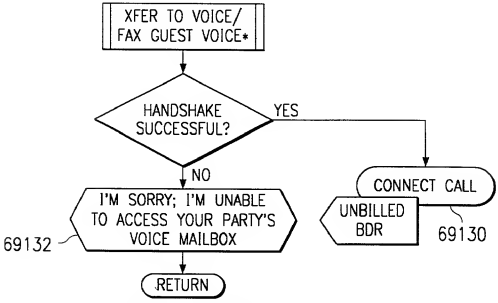


FIG. 69K

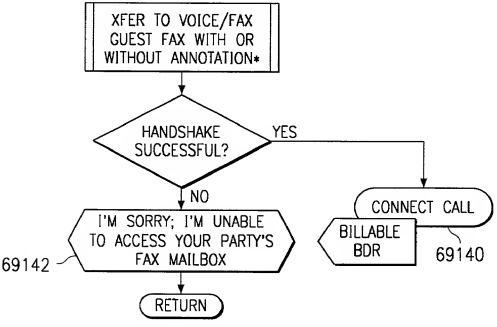


FIG. 69L

10/1790,086/960

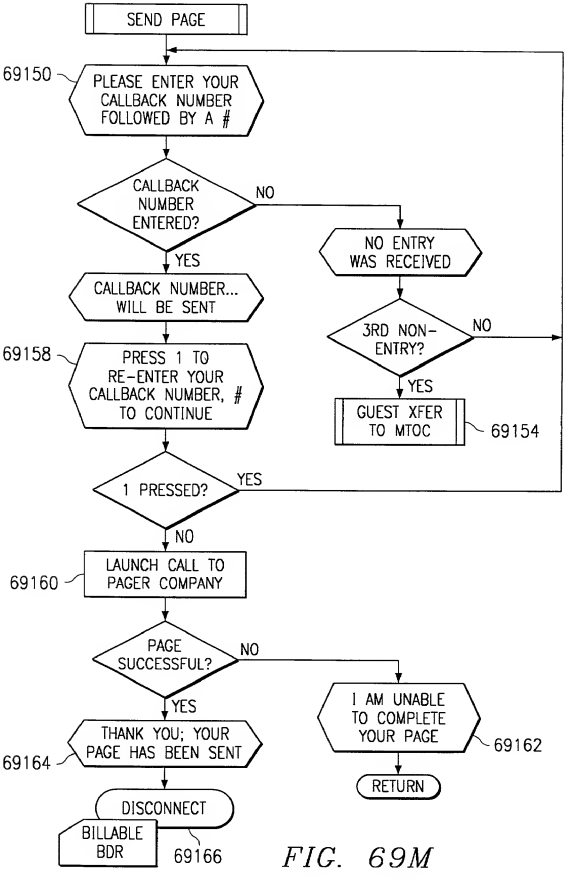

SEND PAGE
69150
PLEASE ENTER YOUR CALLBACK NUMBER FOLLOWED BY A #
CALLBACK NUMBER ENTERED?
NO
YES
NO ENTRY WAS RECEIVED
CALLBACK NUMBER... WILL BE SENT
3RD NON-ENTRY?
NO
YES
69158
PRESS 1 TO RE-ENTER YOUR CALLBACK NUMBER, # TO CONTINUE
GUEST XFER TO MTOC
69154
1 PRESSED?
YES
NO
69160
LAUNCH CALL TO PAGER COMPANY
PAGE SUCCESSFUL?
NO
YES
I AM UNABLE TO COMPLETE YOUR PAGE
69162
69164
THANK YOU; YOUR PAGE HAS BEEN SENT
RETURN
DISCONNECT
BILLABLE BDR
69166

FIG. 69M

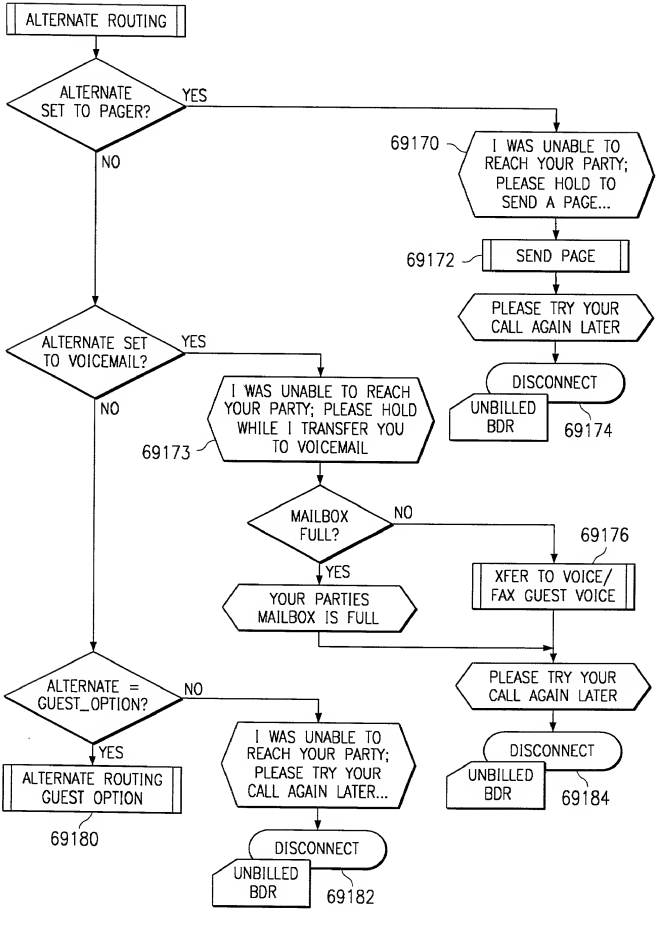

ALTERNATE ROUTING
ALTERNATE SET TO PAGER?
YES
NO
69170
I WAS UNABLE TO REACH YOUR PARTY; PLEASE HOLD TO SEND A PAGE...
69172
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER
DISCONNECT
UNBILLED BDR
69174
ALTERNATE SET TO VOICEMAIL?
YES
NO
I WAS UNABLE TO REACH YOUR PARTY; PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
69173
MAILBOX FULL?
NO
YES
69176
XFER TO VOICE/ FAX GUEST VOICE
YOUR PARTIES MAILBOX IS FULL
PLEASE TRY YOUR CALL AGAIN LATER
ALTERNATE = GUEST_OPTION?
NO
YES
I WAS UNABLE TO REACH YOUR PARTY; PLEASE TRY YOUR CALL AGAIN LATER...
DISCONNECT
UNBILLED BDR
69184
ALTERNATE ROUTING GUEST OPTION
69180
DISCONNECT
UNBILLED BDR
69182

FIG. 69N

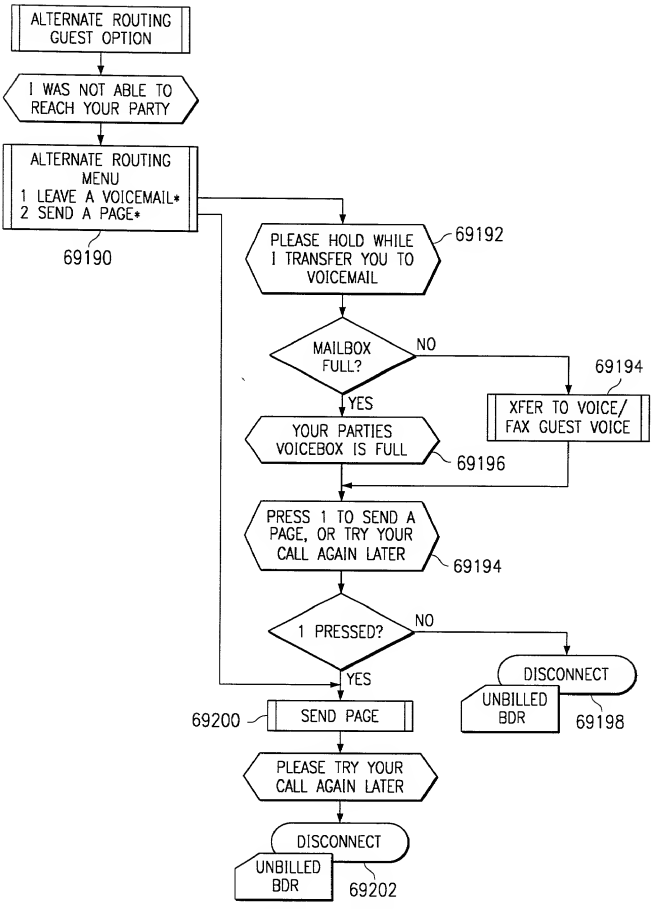

ALTERNATE ROUTING GUEST OPTION
I WAS NOT ABLE TO REACH YOUR PARTY
ALTERNATE ROUTING MENU
1 LEAVE A VOICEMAIL*
2 SEND A PAGE*
69190
PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
69192
MAILBOX FULL?
NO
YES
69194
XFER TO VOICE/ FAX GUEST VOICE
YOUR PARTIES VOICEBOX IS FULL
69196
PRESS 1 TO SEND A PAGE, OR TRY YOUR CALL AGAIN LATER
69194
1 PRESSED?
NO
YES
DISCONNECT
UNBILLED BDR
69198
69200
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER
DISCONNECT
UNBILLED BDR
69202

FIG. 690

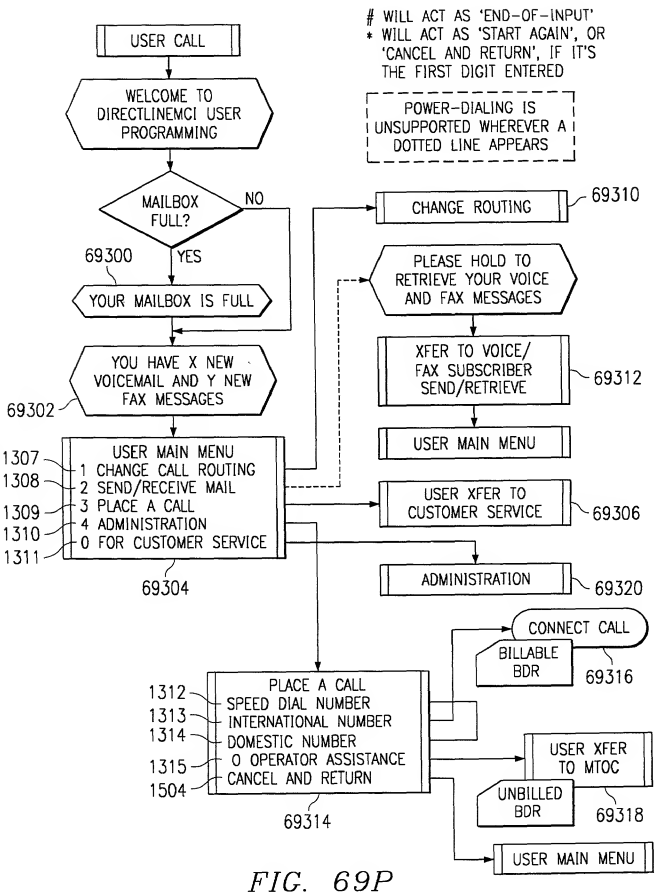

WILL ACT AS 'END-OF-INPUT'
* WILL ACT AS 'START AGAIN', OR 'CANCEL AND RETURN', IF IT'S THE FIRST DIGIT ENTERED
POWER-DIALING IS UNSUPPORTED WHEREVER A DOTTED LINE APPEARS
USER CALL
WELCOME TO DIRECTLINEMCI USER PROGRAMMING
MAILBOX FULL?
NO
YES
69300
YOUR MAILBOX IS FULL
YOU HAVE X NEW VOICEMAIL AND Y NEW FAX MESSAGES
69302
USER MAIN MENU
1307 1 CHANGE CALL ROUTING
1308 2 SEND/RECEIVE MAIL
1309 3 PLACE A CALL
1310 4 ADMINISTRATION
1311 0 FOR CUSTOMER SERVICE
69304
CHANGE ROUTING
69310
PLEASE HOLD TO RETRIEVE YOUR VOICE AND FAX MESSAGES
XFER TO VOICE/ FAX SUBSCRIBER SEND/RETRIEVE
69312
USER MAIN MENU
USER XFER TO CUSTOMER SERVICE
69306
ADMINISTRATION
69320
CONNECT CALL
BILLABLE BDR
69316
PLACE A CALL
1312 SPEED DIAL NUMBER
1313 INTERNATIONAL NUMBER
1314 DOMESTIC NUMBER
1315 0 OPERATOR ASSISTANCE
1504 CANCEL AND RETURN
69314
USER XFER TO MTOC
UNBILLED BDR
69318
USER MAIN MENU

FIG. 69P

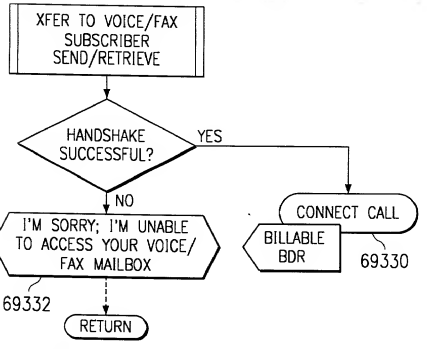


FIG. 69Q

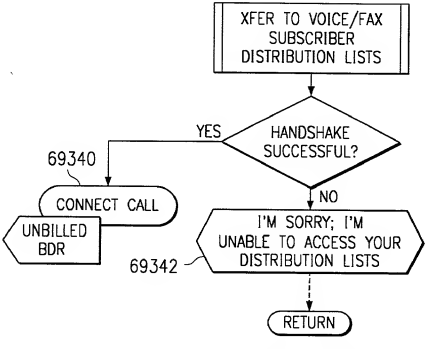


FIG. 69R

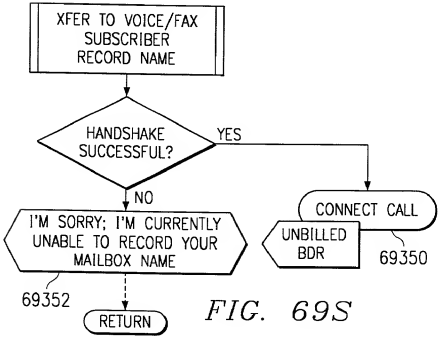


FIG. 69S

08/754,865 - 06/14/01

Docket No.: VON-96-046-C1 Appln No. NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheet of Drawings: 74 of 124

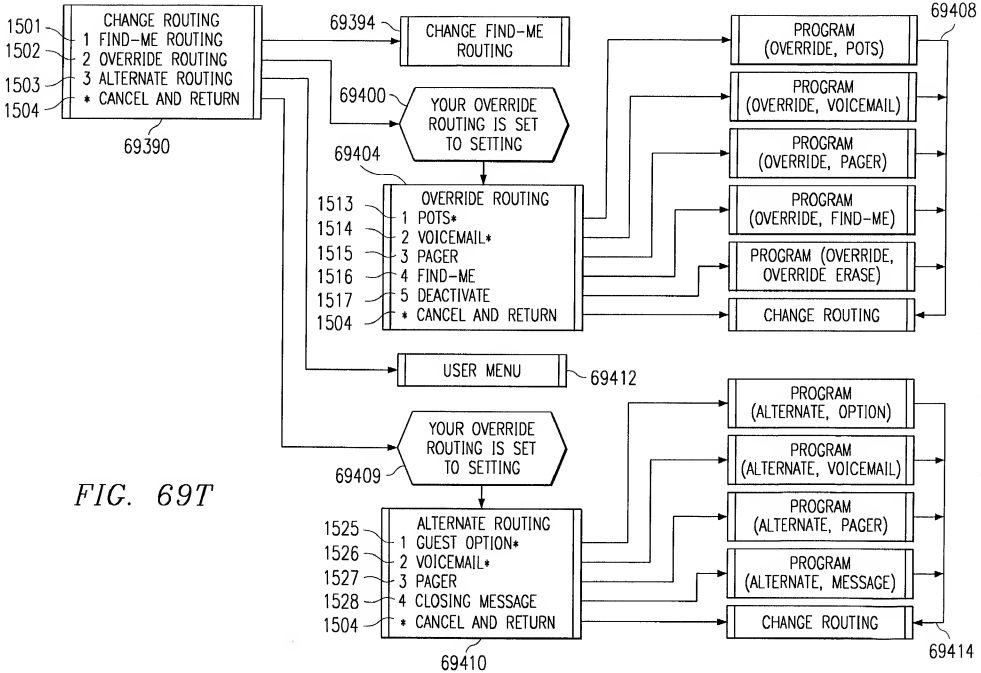


FIG. 69T

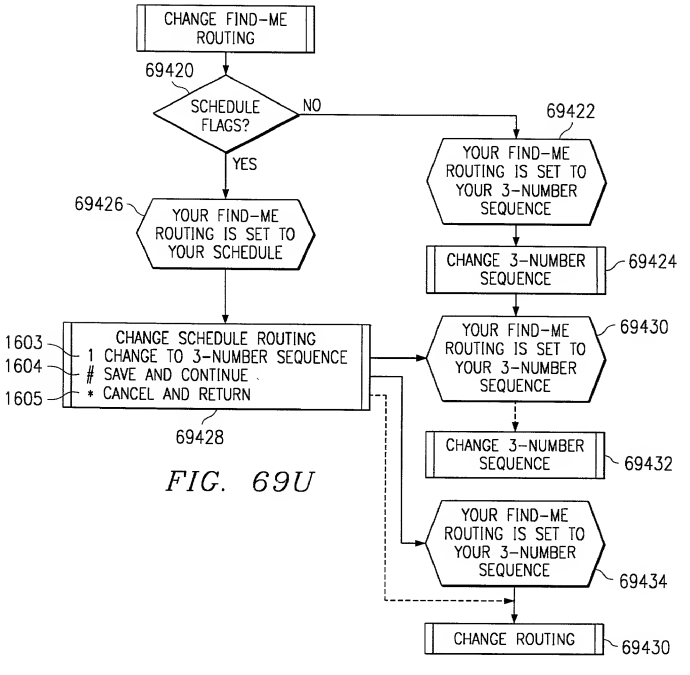


FIG. 69U

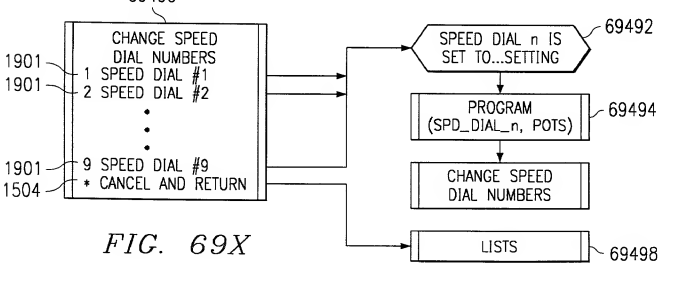


FIG. 69X

09679865 - 061401

US 6,298,062 B1

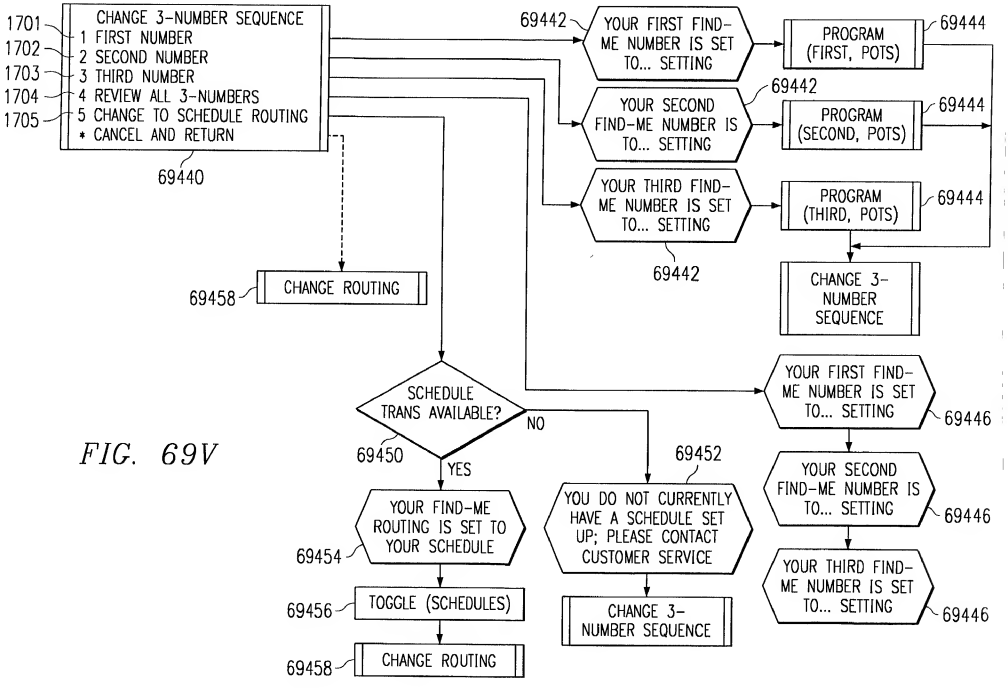


FIG. 69V

Docket No.: VON-96-046-C1 Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheets of Drawings: 76 of 124

TOKYO 0866860

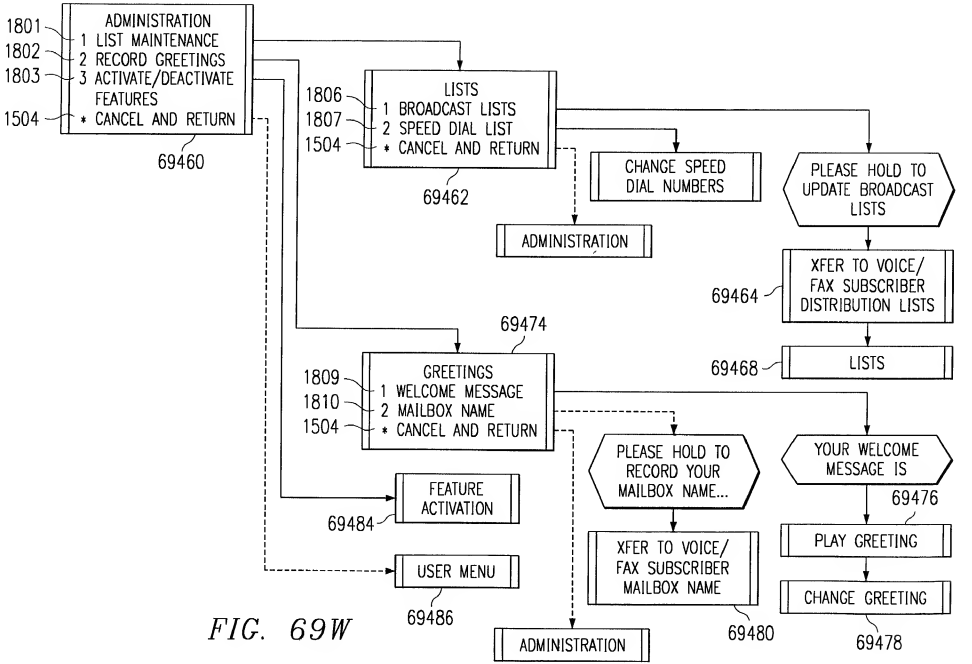


FIG. 69W

Docket No.: WON-96-046-C1 Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheets of Drawings: 77 of 134

TON790 "E8662860

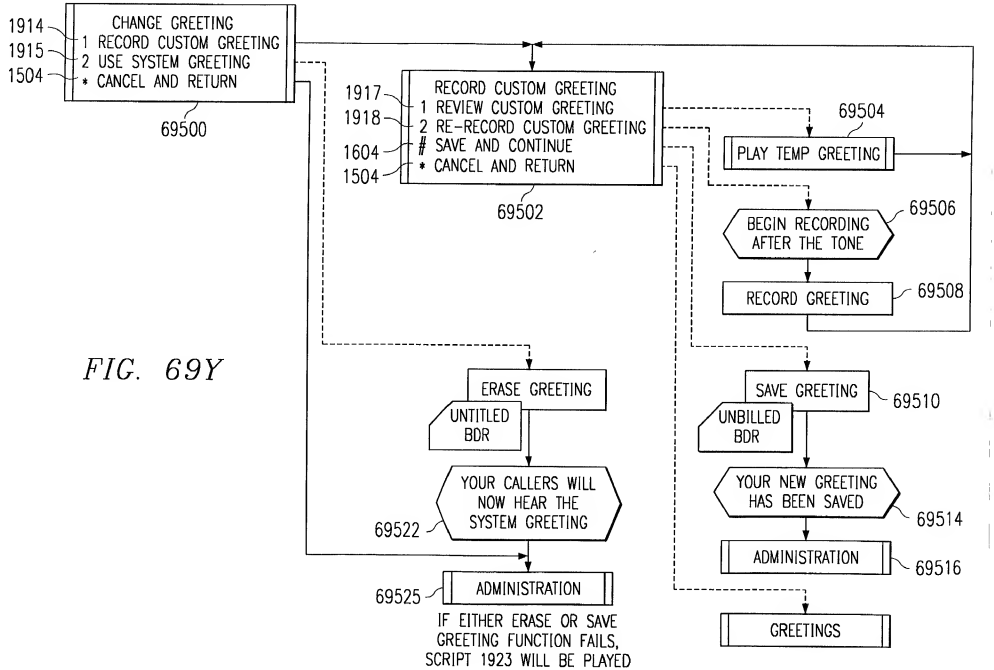


FIG. 69Y

Docket No.: VON-96-046-CI Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al
Sheets of Drawings: 78 of 134

EM1190"E866864

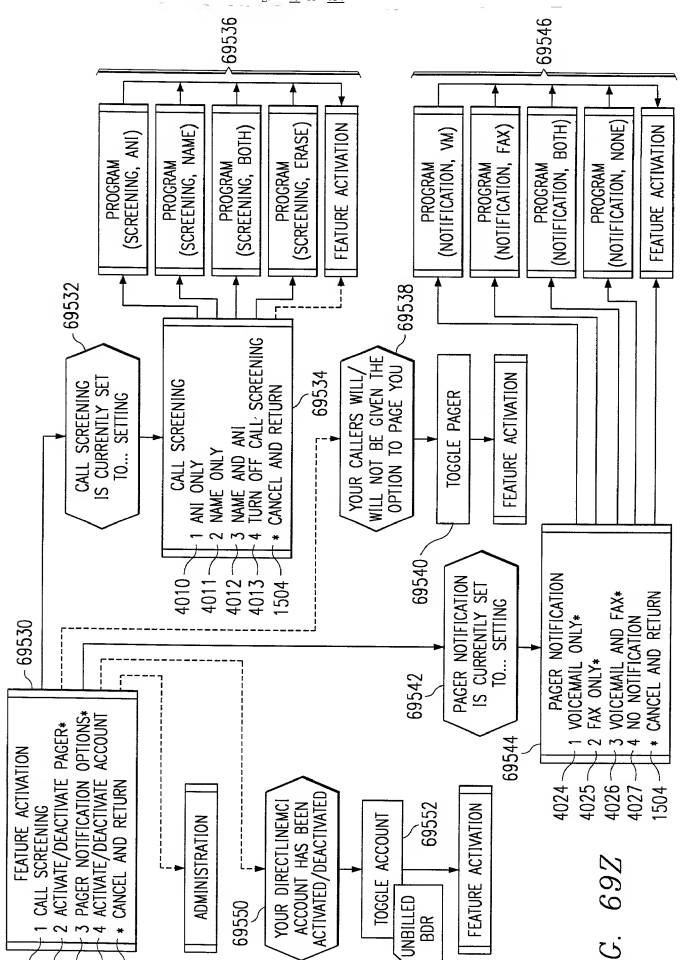


FIG. 69Z

10470 "E866286D

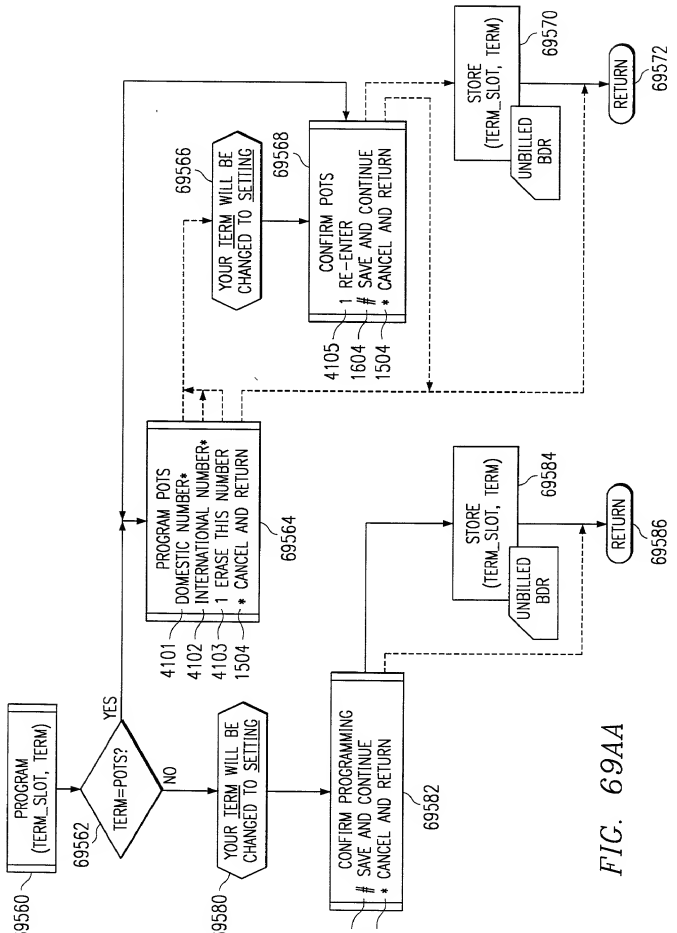


FIG. 69A

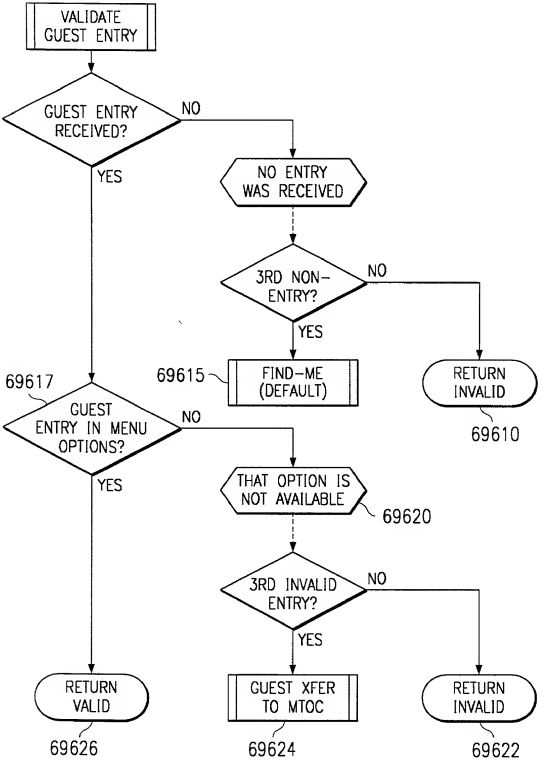

VALIDATE GUEST ENTRY
GUEST ENTRY RECEIVED?
NO
YES
NO ENTRY WAS RECEIVED
3RD NON-ENTRY?
NO
YES
69617
69615
FIND-ME (DEFAULT)
RETURN INVALID
69610
GUEST ENTRY IN MENU OPTIONS?
NO
YES
THAT OPTION IS NOT AVAILABLE
69620
3RD INVALID ENTRY?
NO
YES
RETURN VALID
69626
GUEST XFER TO MTOC
69624
RETURN INVALID
69622

FIG. 69AB

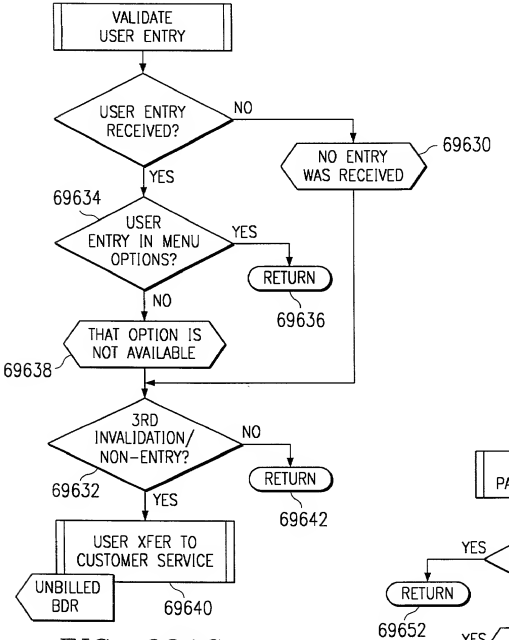


FIG. 69AC

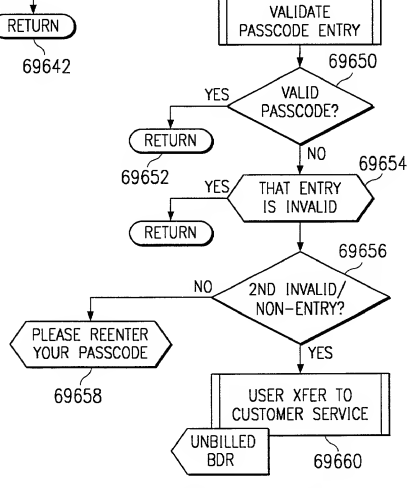


FIG. 69AD

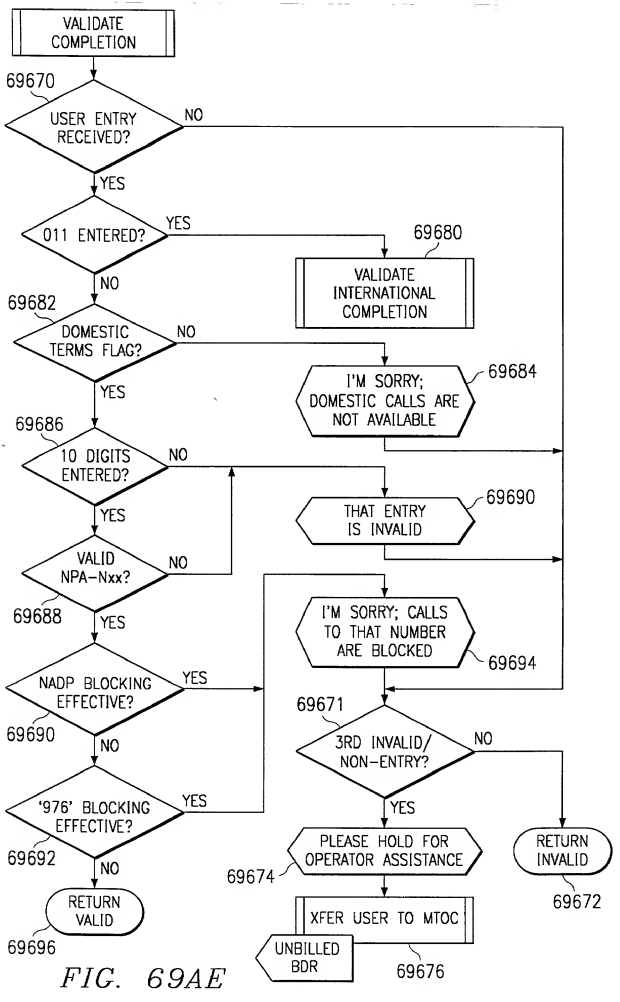

VALIDATE COMPLETION
69670
USER ENTRY RECEIVED?
NO
YES
011 ENTERED?
YES
69680
VALIDATE INTERNATIONAL COMPLETION
NO
69682
DOMESTIC TERMS FLAG?
NO
I'M SORRY; DOMESTIC CALLS ARE NOT AVAILABLE
69684
YES
69686
10 DIGITS ENTERED?
NO
THAT ENTRY IS INVALID
69690
YES
VALID NPA-Nxx?
NO
69688
YES
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED
69694
NADP BLOCKING EFFECTIVE?
YES
69690
NO
69671
3RD INVALID/ NON-ENTRY?
NO
YES
'976' BLOCKING EFFECTIVE?
YES
69692
NO
PLEASE HOLD FOR OPERATOR ASSISTANCE
69674
RETURN INVALID
69672
RETURN VALID
69696
XFER USER TO MTOC
UNBILLED BDR
69676

FIG. 69AE

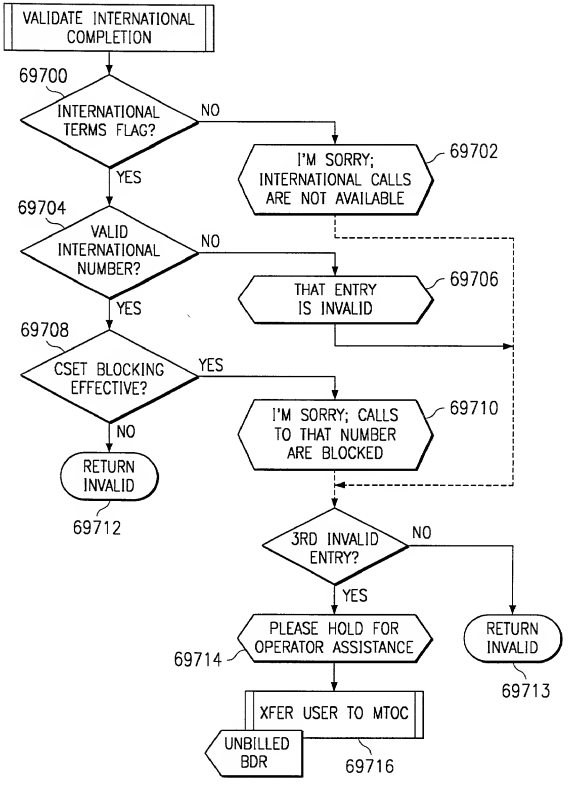

VALIDATE INTERNATIONAL COMPLETION
69700
INTERNATIONAL TERMS FLAG?
NO
YES
I'M SORRY; INTERNATIONAL CALLS ARE NOT AVAILABLE
69702
69704
VALID INTERNATIONAL NUMBER?
NO
YES
THAT ENTRY IS INVALID
69706
69708
CSET BLOCKING EFFECTIVE?
YES
NO
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED
69710
RETURN INVALID
69712
3RD INVALID ENTRY?
NO
YES
PLEASE HOLD FOR OPERATOR ASSISTANCE
69714
RETURN INVALID
69713
XFER USER TO MTOC
UNBILLED BDR
69716

FIG. 69AF

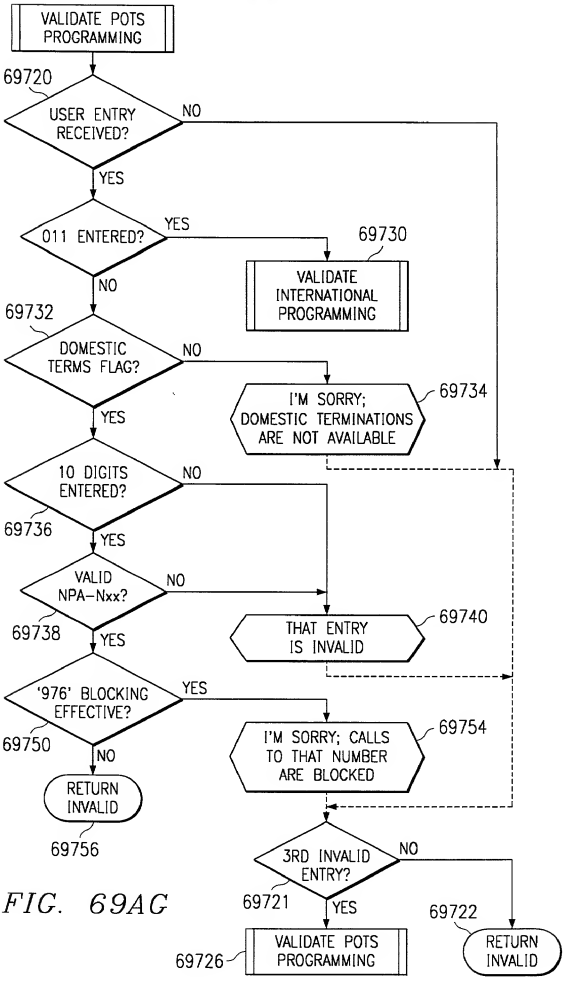

VALIDATE POTS PROGRAMMING
69720
USER ENTRY RECEIVED?
NO
YES
011 ENTERED?
YES
69730
VALIDATE INTERNATIONAL PROGRAMMING
NO
69732
DOMESTIC TERMS FLAG?
NO
I'M SORRY; DOMESTIC TERMINATIONS ARE NOT AVAILABLE
69734
YES
10 DIGITS ENTERED?
NO
69736
YES
VALID NPA-Nxx?
NO
69738
YES
THAT ENTRY IS INVALID
69740
'976' BLOCKING EFFECTIVE?
YES
69750
NO
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED
69754
RETURN INVALID
69756
3RD INVALID ENTRY?
NO
69721
YES
69722
RETURN INVALID
69726
VALIDATE POTS PROGRAMMING

FIG. 69AG

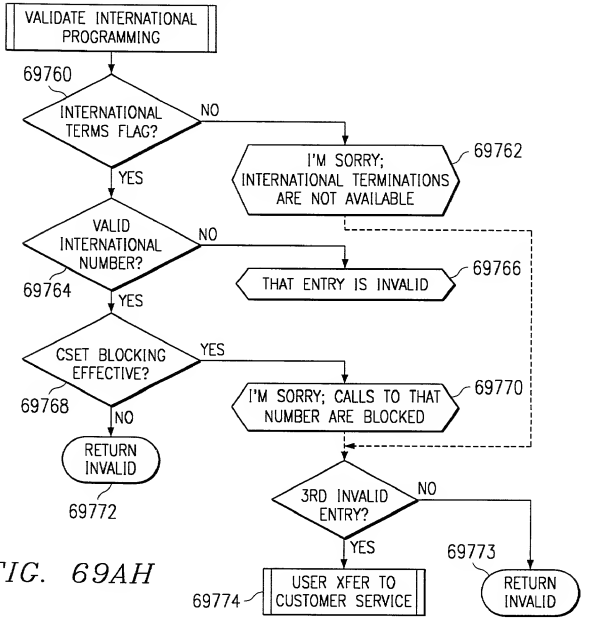


FIG. 69AH

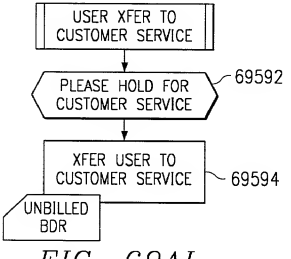


FIG. 69AI

US 6,104,700

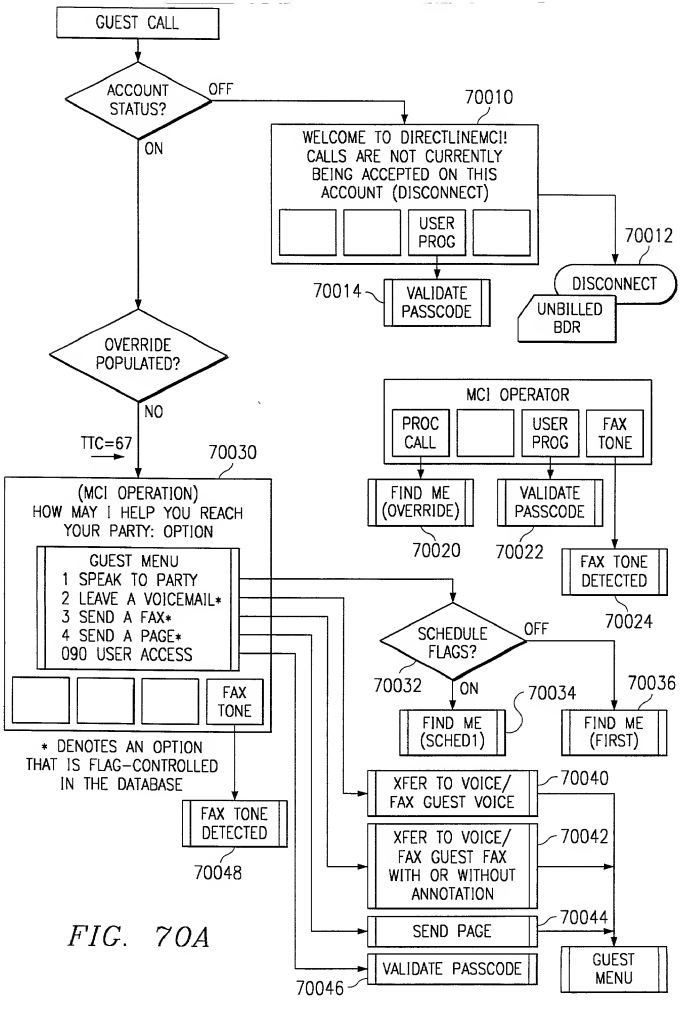

GUEST CALL
ACCOUNT STATUS?
OFF
ON
70010
WELCOME TO DIRECTLINEMCI! CALLS ARE NOT CURRENTLY BEING ACCEPTED ON THIS ACCOUNT (DISCONNECT)
USER PROG
70012
DISCONNECT
UNBILLED BDR
70014
VALIDATE PASSCODE
OVERRIDE POPULATED?
NO
TTC=67
70030
(MCI OPERATION) HOW MAY I HELP YOU REACH YOUR PARTY: OPTION
GUEST MENU
1 SPEAK TO PARTY
2 LEAVE A VOICEMAIL*
3 SEND A FAX*
4 SEND A PAGE*
090 USER ACCESS
FAX TONE
* DENOTES AN OPTION THAT IS FLAG-CONTROLLED IN THE DATABASE
FAX TONE DETECTED
70048
MCI OPERATOR
PROC CALL
USER PROG
FAX TONE
FIND ME (OVERRIDE)
70020
VALIDATE PASSCODE
70022
FAX TONE DETECTED
70024
SCHEDULE FLAGS?
OFF
ON
70032
70034
70036
FIND ME (SCHED1)
FIND ME (FIRST)
XFER TO VOICE/ FAX GUEST VOICE
70040
XFER TO VOICE/ FAX GUEST FAX WITH OR WITHOUT ANNOTATION
70042
SEND PAGE
70044
VALIDATE PASSCODE
70046
GUEST MENU

FIG. 70A

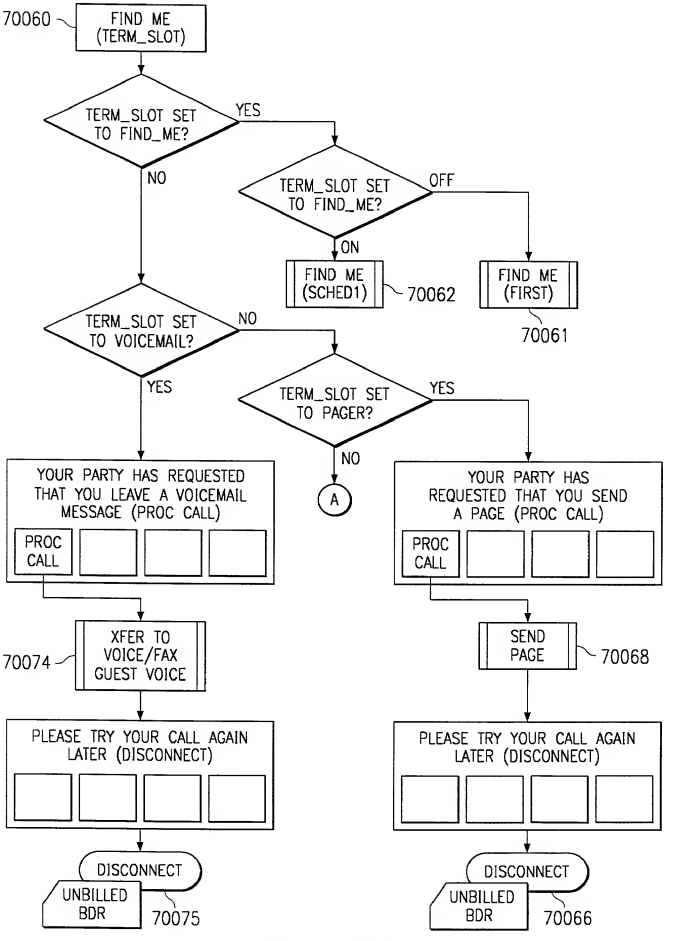
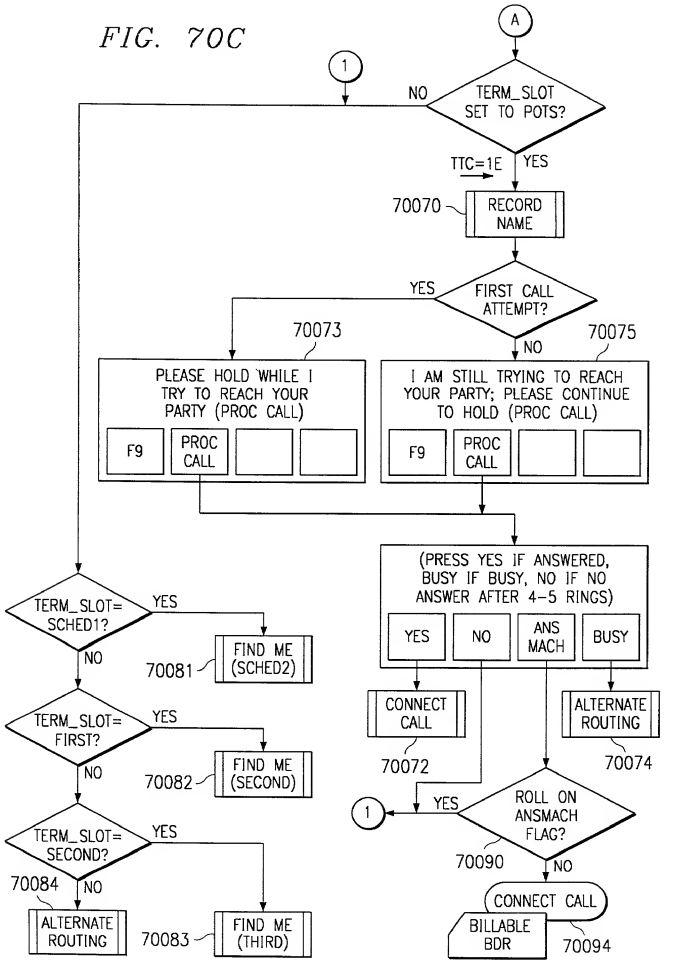

70060
FIND ME (TERM_SLOT)
TERM_SLOT SET TO FIND_ME?
YES
NO
TERM_SLOT SET TO FIND_ME?
OFF
ON
FIND ME (SCHED1)
70062
FIND ME (FIRST)
70061
TERM_SLOT SET TO VOICEMAIL?
NO
YES
TERM_SLOT SET TO PAGER?
YES
NO
A
YOUR PARTY HAS REQUESTED THAT YOU LEAVE A VOICEMAIL MESSAGE (PROC CALL)
PROC CALL
YOUR PARTY HAS REQUESTED THAT YOU SEND A PAGE (PROC CALL)
PROC CALL
70074
XFER TO VOICE/FAX GUEST VOICE
SEND PAGE
70068
PLEASE TRY YOUR CALL AGAIN LATER (DISCONNECT)
PLEASE TRY YOUR CALL AGAIN LATER (DISCONNECT)
DISCONNECT
UNBILLED BDR
70075
DISCONNECT
UNBILLED BDR
70066

FIG. 70B

FIG. 70C


A
1
NO
TERM_SLOT SET TO POTS?
YES
TTC=1E
70070
RECORD NAME
YES
FIRST CALL ATTEMPT?
NO
70073
PLEASE HOLD WHILE I TRY TO REACH YOUR PARTY (PROC CALL)
F9
PROC CALL
70075
I AM STILL TRYING TO REACH YOUR PARTY; PLEASE CONTINUE TO HOLD (PROC CALL)
F9
PROC CALL
(PRESS YES IF ANSWERED, BUSY IF BUSY, NO IF NO ANSWER AFTER 4-5 RINGS)
YES
NO
ANS MACH
BUSY
TERM_SLOT= SCHED1?
YES
NO
70081
FIND ME (SCHED2)
TERM_SLOT= FIRST?
YES
NO
70082
FIND ME (SECOND)
TERM_SLOT= SECOND?
YES
70084
NO
ALTERNATE ROUTING
70083
FIND ME (THIRD)
CONNECT CALL
70072
ALTERNATE ROUTING
70074
1
YES
ROLL ON ANSMACH FLAG?
70090
NO
CONNECT CALL
BILLABLE BDR
70094

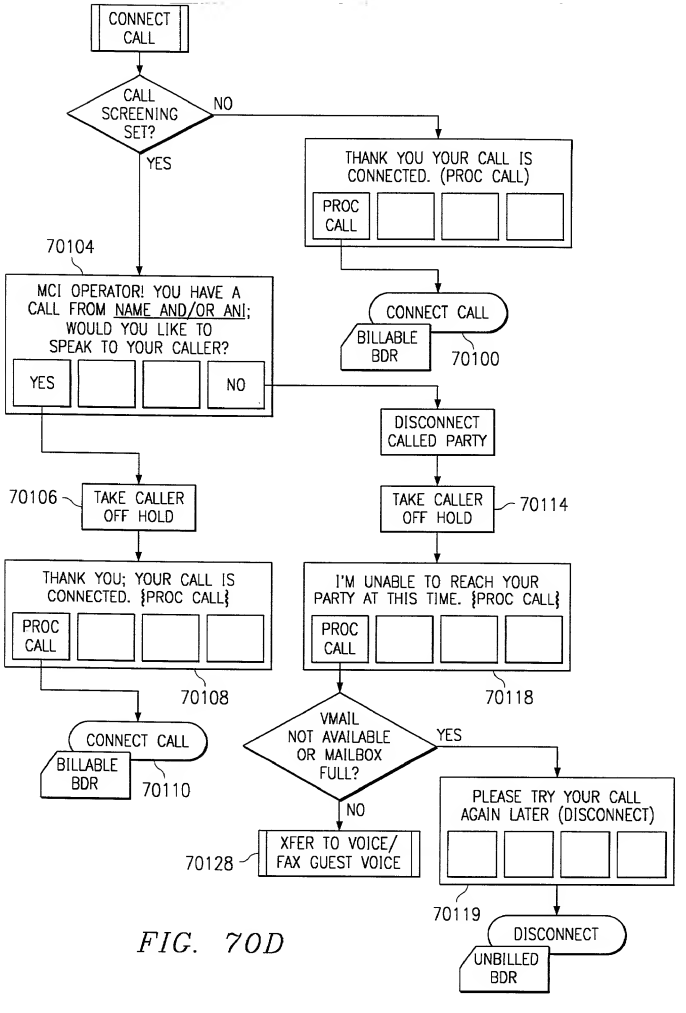

CONNECT CALL
CALL SCREENING SET?
NO
YES
THANK YOU YOUR CALL IS CONNECTED. (PROC CALL)
PROC CALL
70104
MCI OPERATOR! YOU HAVE A CALL FROM NAME AND/OR ANI; WOULD YOU LIKE TO SPEAK TO YOUR CALLER?
YES
NO
CONNECT CALL
BILLABLE BDR
70100
DISCONNECT CALLED PARTY
70106
TAKE CALLER OFF HOLD
TAKE CALLER OFF HOLD
70114
THANK YOU; YOUR CALL IS CONNECTED. {PROC CALL}
PROC CALL
70108
I'M UNABLE TO REACH YOUR PARTY AT THIS TIME. {PROC CALL}
PROC CALL
70118
CONNECT CALL
BILLABLE BDR
70110
VMAIL NOT AVAILABLE OR MAILBOX FULL?
YES
NO
PLEASE TRY YOUR CALL AGAIN LATER (DISCONNECT)
70128
XFER TO VOICE/ FAX GUEST VOICE
70119
DISCONNECT
UNBILLED BDR

FIG. 70D

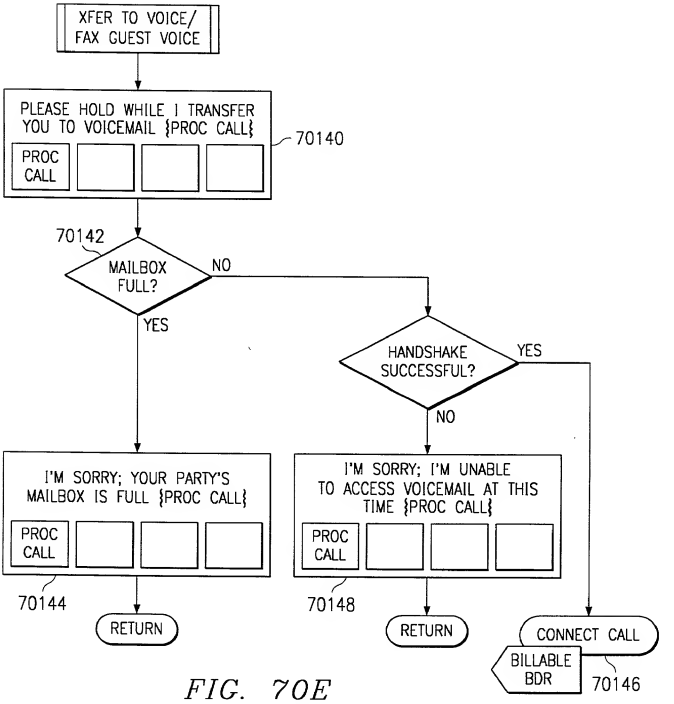


FIG. 70E

US005995963A

VON-96-046-C1

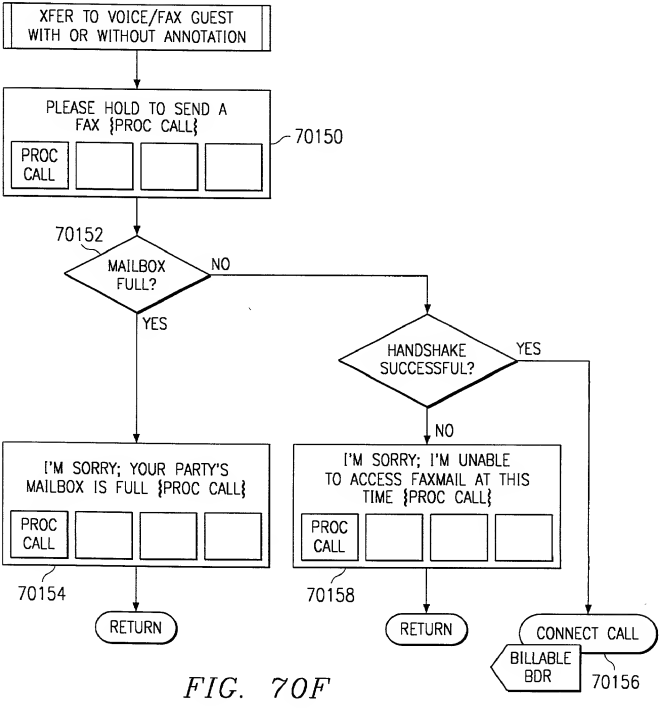


FIG. 70F

VON-96-046-C1

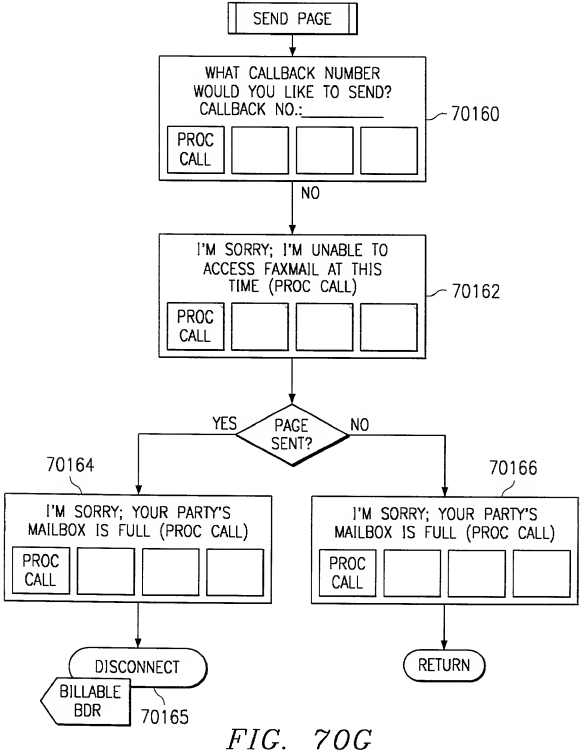


FIG. 70G

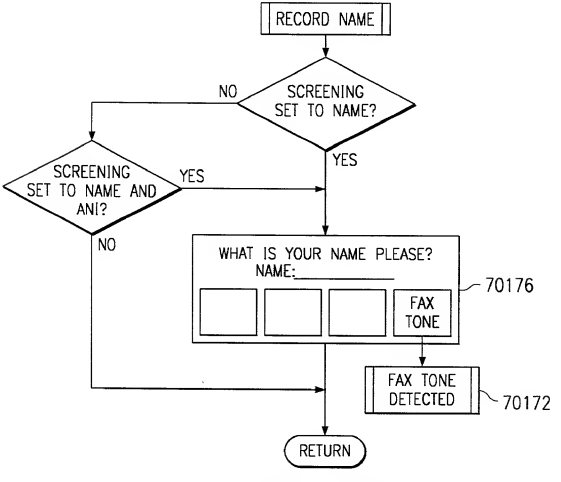


FIG. 70H

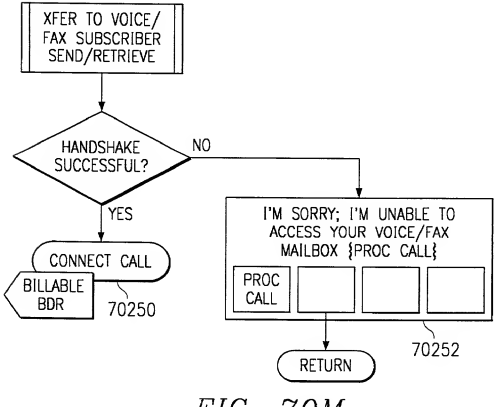


FIG. 70M

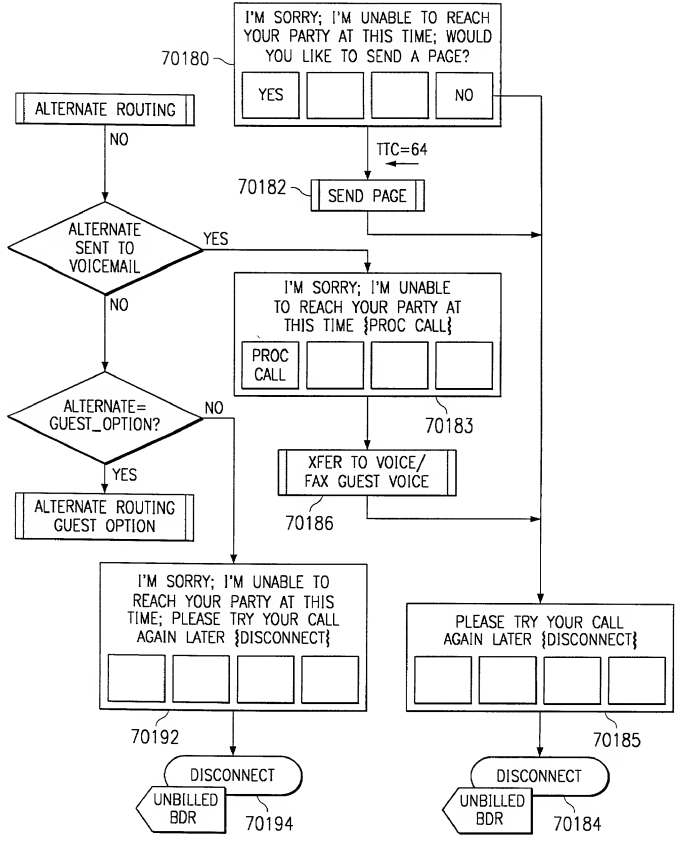

I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME; WOULD YOU LIKE TO SEND A PAGE?
70180
YES
NO
ALTERNATE ROUTING
NO
TTC=64
70182
SEND PAGE
ALTERNATE SENT TO VOICEMAIL
YES
NO
I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME {PROC CALL}
PROC CALL
70183
ALTERNATE= GUEST_OPTION?
NO
YES
XFER TO VOICE/ FAX GUEST VOICE
70186
ALTERNATE ROUTING GUEST OPTION
I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME; PLEASE TRY YOUR CALL AGAIN LATER {DISCONNECT}
PLEASE TRY YOUR CALL AGAIN LATER {DISCONNECT}
70192
70185
DISCONNECT
UNBILLED BDR
70194
DISCONNECT
UNBILLED BDR
70184

FIG. 70I

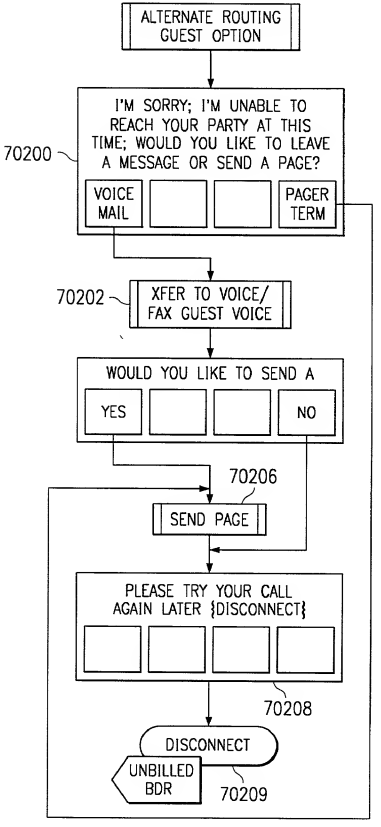

ALTERNATE ROUTING GUEST OPTION
I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME; WOULD YOU LIKE TO LEAVE A MESSAGE OR SEND A PAGE?
70200
VOICE MAIL
PAGER TERM
70202
XFER TO VOICE/ FAX GUEST VOICE
WOULD YOU LIKE TO SEND A
YES
NO
70206
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER {DISCONNECT}
70208
DISCONNECT
UNBILLED BDR
70209

FIG. 70J

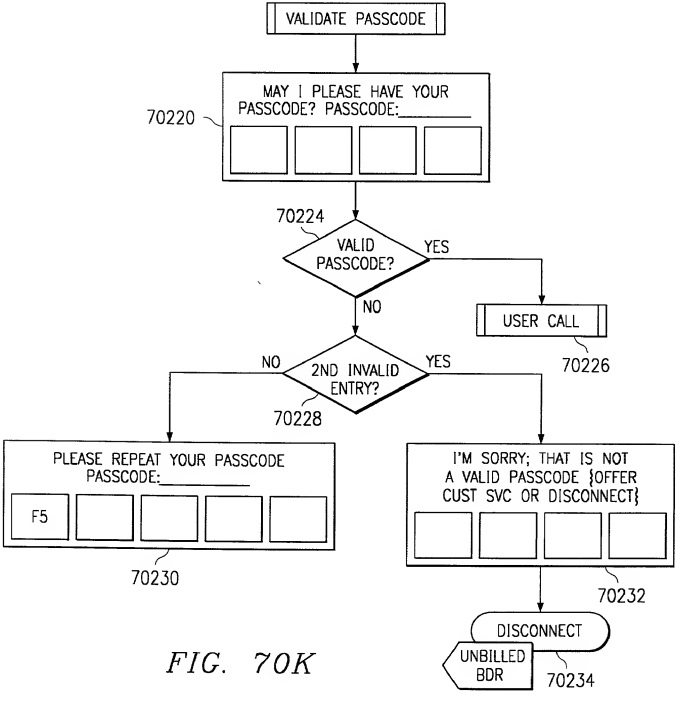

VALIDATE PASSCODE
MAY I PLEASE HAVE YOUR PASSCODE? PASSCODE:_____
70220
70224
VALID PASSCODE?
YES
NO
USER CALL
70226
NO
2ND INVALID ENTRY?
YES
70228
PLEASE REPEAT YOUR PASSCODE PASSCODE:_____
F5
70230
I'M SORRY; THAT IS NOT A VALID PASSCODE {OFFER CUST SVC OR DISCONNECT}
70232
DISCONNECT
UNBILLED BDR
70234

FIG. 70K

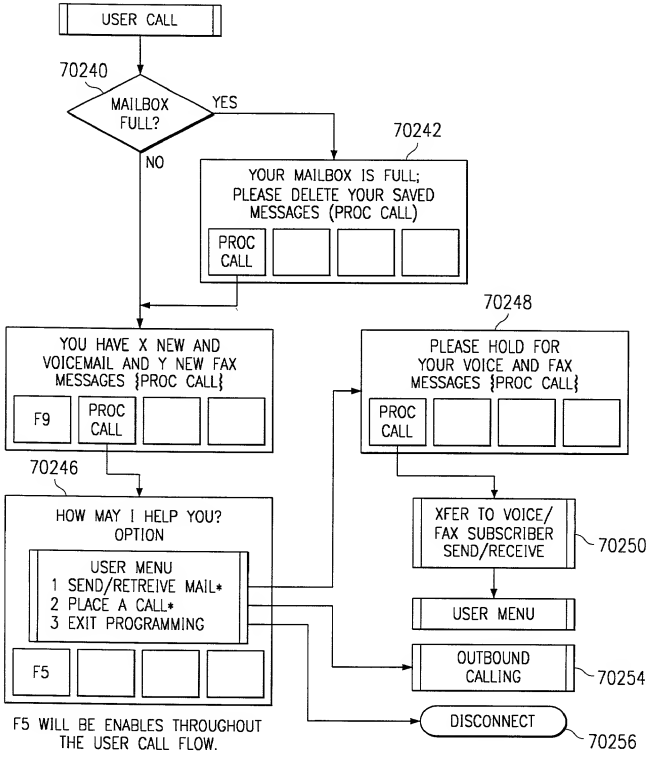

USER CALL
70240
MAILBOX FULL?
YES
NO
70242
YOUR MAILBOX IS FULL; PLEASE DELETE YOUR SAVED MESSAGES (PROC CALL)
PROC CALL
70248
YOU HAVE X NEW AND VOICEMAIL AND Y NEW FAX MESSAGES {PROC CALL}
F9
PROC CALL
PLEASE HOLD FOR YOUR VOICE AND FAX MESSAGES {PROC CALL}
PROC CALL
70246
HOW MAY I HELP YOU? OPTION
USER MENU
1 SEND/RETREIVE MAIL*
2 PLACE A CALL*
3 EXIT PROGRAMMING
F5
XFER TO VOICE/ FAX SUBSCRIBER SEND/RECEIVE
70250
USER MENU
OUTBOUND CALLING
70254
DISCONNECT
70256
F5 WILL BE ENABLES THROUGHOUT THE USER CALL FLOW.

FIG. 70L

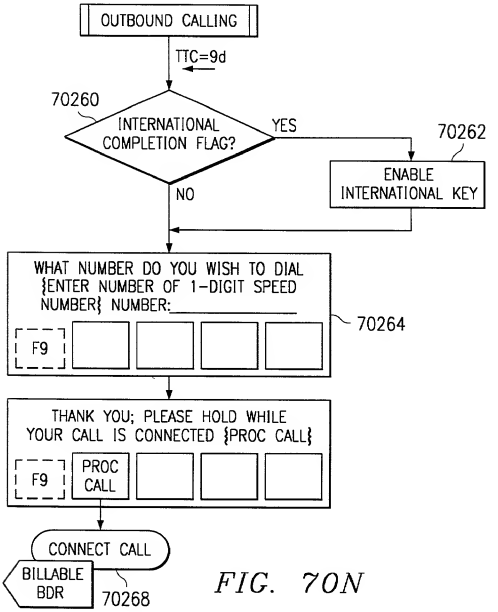


FIG. 70N

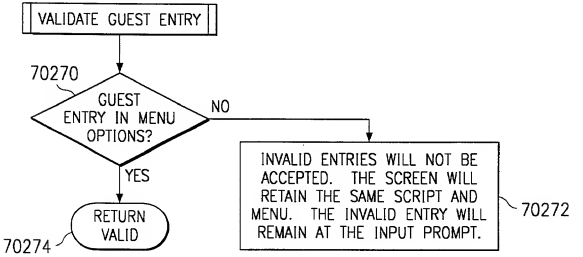


FIG. 700

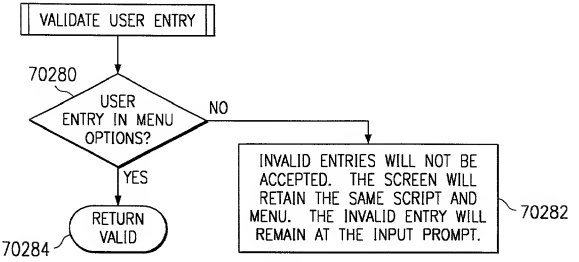


FIG. 70P

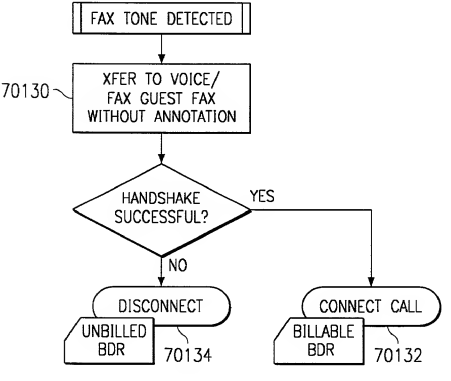


FIG. 70S

T0470 "C3567860

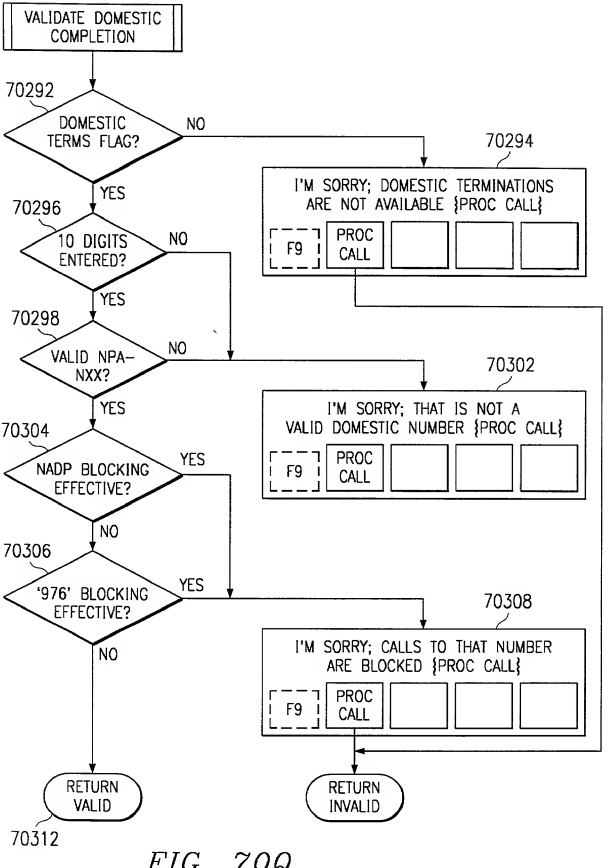

VALIDATE DOMESTIC COMPLETION
70292
DOMESTIC TERMS FLAG?
NO
YES
70294
I'M SORRY; DOMESTIC TERMINATIONS ARE NOT AVAILABLE {PROC CALL}
F9
PROC CALL
70296
10 DIGITS ENTERED?
NO
YES
70298
VALID NPA–NXX?
NO
YES
70302
I'M SORRY; THAT IS NOT A VALID DOMESTIC NUMBER {PROC CALL}
F9
PROC CALL
70304
NADP BLOCKING EFFECTIVE?
YES
NO
70306
'976' BLOCKING EFFECTIVE?
YES
NO
70308
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED {PROC CALL}
F9
PROC CALL
RETURN VALID
70312
RETURN INVALID

FIG. 70Q

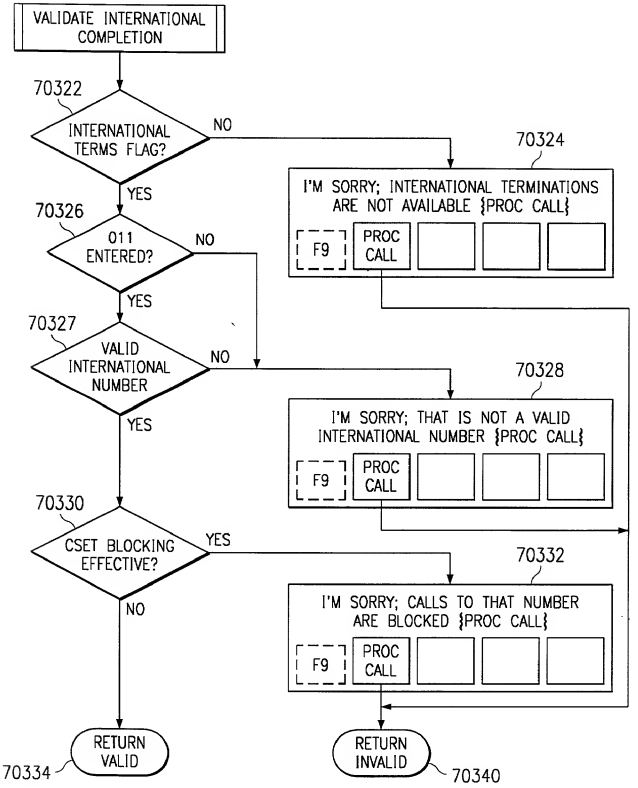

VALIDATE INTERNATIONAL COMPLETION
70322
INTERNATIONAL TERMS FLAG?
NO
70324
I'M SORRY; INTERNATIONAL TERMINATIONS ARE NOT AVAILABLE {PROC CALL}
F9
PROC CALL
YES
70326
011 ENTERED?
NO
YES
70327
VALID INTERNATIONAL NUMBER
NO
70328
I'M SORRY; THAT IS NOT A VALID INTERNATIONAL NUMBER {PROC CALL}
F9
PROC CALL
YES
70330
CSET BLOCKING EFFECTIVE?
YES
70332
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED {PROC CALL}
F9
PROC CALL
NO
RETURN VALID
70334
RETURN INVALID
70340

FIG. 70R

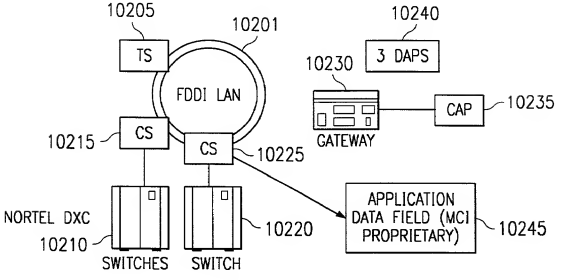

10205
10201
10240
TS
FDDI LAN
3 DAPS
10230
CAP
10235
GATEWAY
10215
CS
CS
10225
APPLICATION DATA FIELD (MCI PROPRIETARY)
10245
NORTEL DXC
10210
10220
SWITCHES
SWITCH

FIG. 71

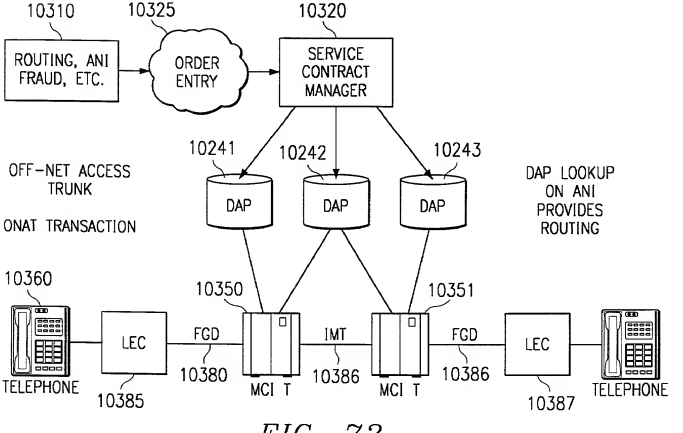

10310
10325
10320
ROUTING, ANI FRAUD, ETC.
ORDER ENTRY
SERVICE CONTRACT MANAGER
10241
10242
10243
OFF-NET ACCESS TRUNK
ONAT TRANSACTION
DAP
DAP
DAP
DAP LOOKUP ON ANI PROVIDES ROUTING
10360
10350
10351
LEC
FGD
IMT
FGD
LEC
TELEPHONE
10380
10386
10386
TELEPHONE
10385
MCI T
MCI T
10387

FIG. 72

TO4190 C866860

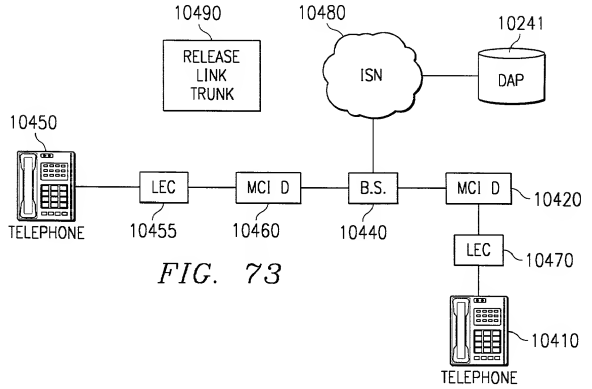


FIG. 73

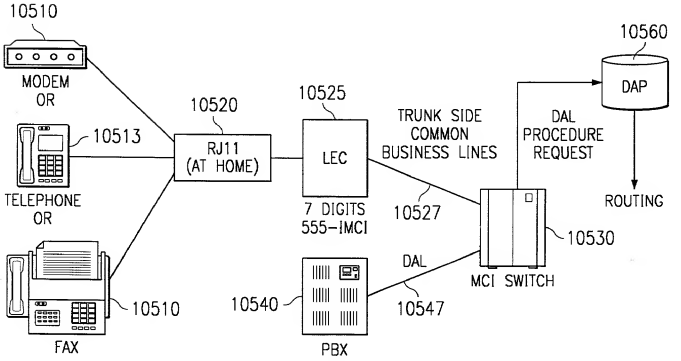


FIG. 74

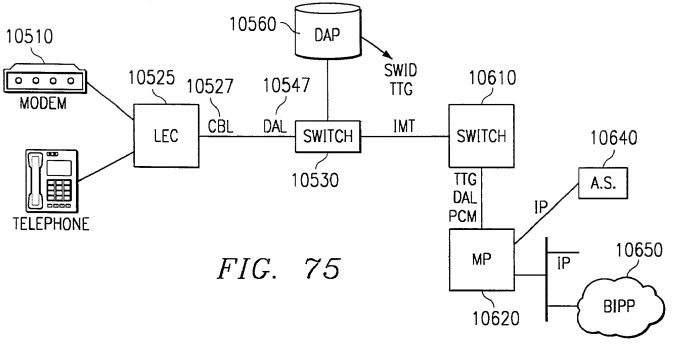


FIG. 75

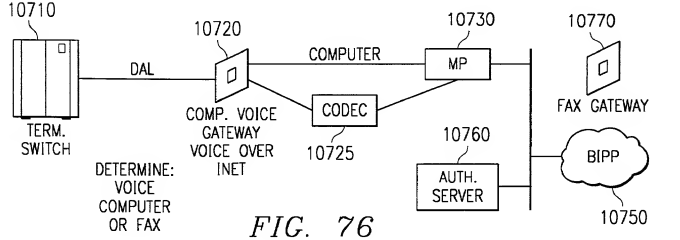


FIG. 76

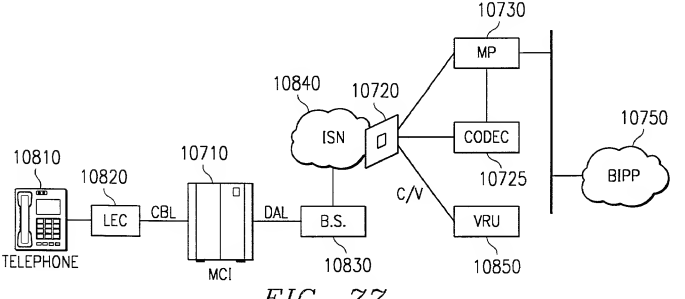


FIG. 77

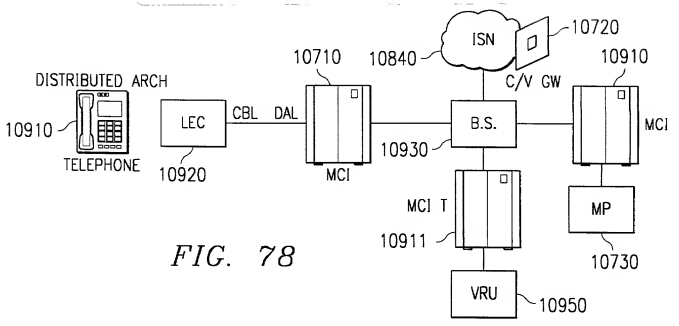


FIG. 78

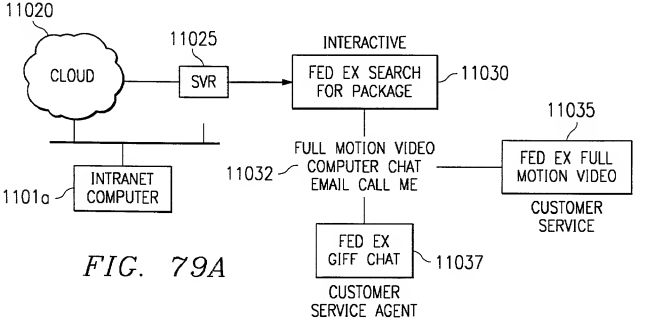


FIG. 79A

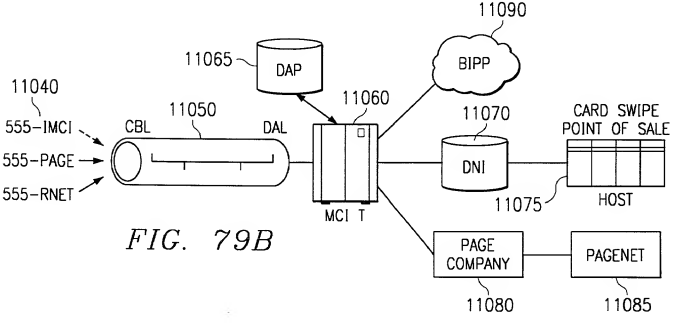


FIG. 79B

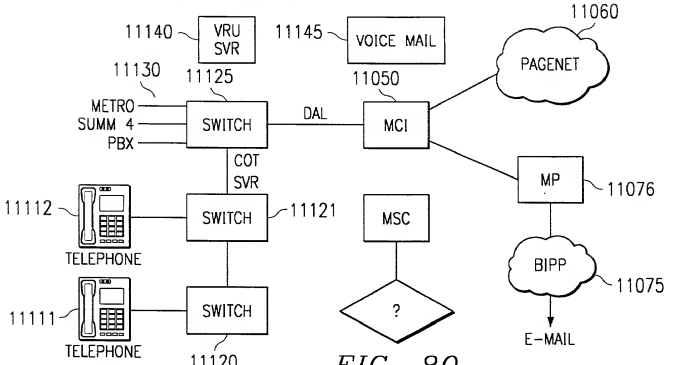

11140
VRU SVR
11145
VOICE MAIL
11060
PAGENET
11130
11125
11050
METRO
SUMM 4
PBX
SWITCH
DAL
MCI
COT SVR
MP
11076
11112
SWITCH
11121
MSC
TELEPHONE
BIPP
11075
11111
SWITCH
?
TELEPHONE
E-MAIL
11120

FIG. 80

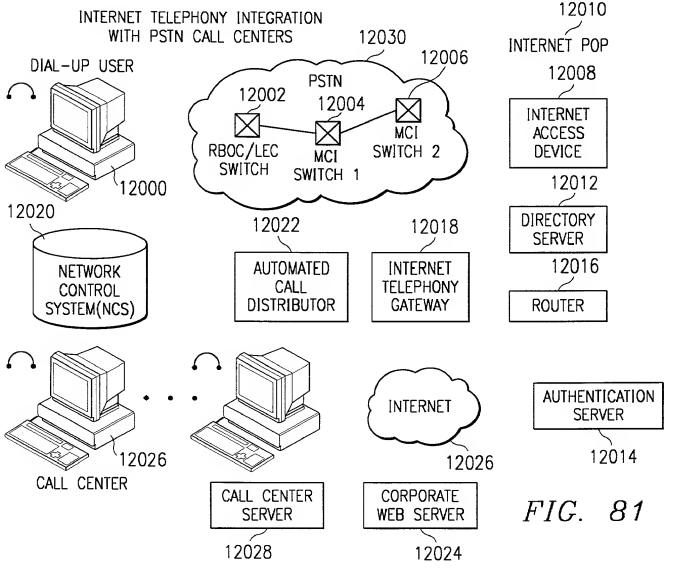

INTERNET TELEPHONY INTEGRATION WITH PSTN CALL CENTERS
12030
12010
INTERNET POP
DIAL-UP USER
12006
PSTN
12008
12002
12004
INTERNET ACCESS DEVICE
MCI SWITCH 2
RBOC/LEC SWITCH
MCI SWITCH 1
12012
12000
DIRECTORY SERVER
12020
12022
12018
NETWORK CONTROL SYSTEM(NCS)
AUTOMATED CALL DISTRIBUTOR
INTERNET TELEPHONY GATEWAY
12016
ROUTER
INTERNET
AUTHENTICATION SERVER
12026
12014
12026
CALL CENTER
CALL CENTER SERVER
CORPORATE WEB SERVER
12028
12024

FIG. 81

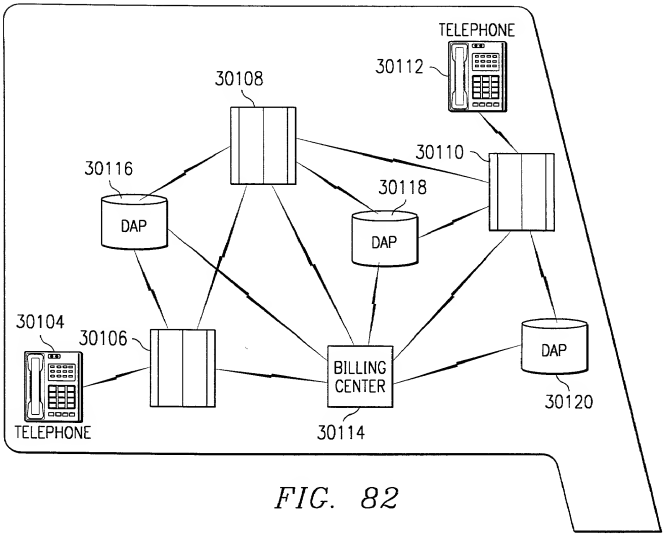

TELEPHONE
30112
30108
30110
30116
30118
DAP
DAP
30104
30106
BILLING CENTER
DAP
30120
TELEPHONE
30114

FIG. 82

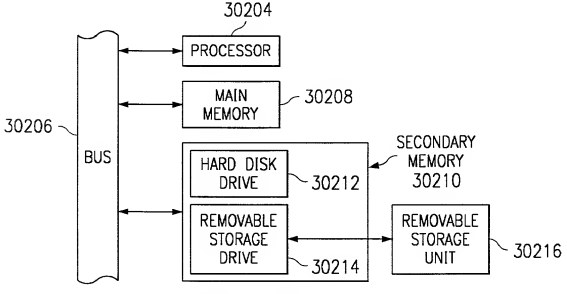

30204
PROCESSOR
MAIN MEMORY
30208
30206
BUS
SECONDARY MEMORY 30210
HARD DISK DRIVE
30212
REMOVABLE STORAGE DRIVE
30214
REMOVABLE STORAGE UNIT
30216

FIG. 83

	BITS	MSB 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	LSB 15
WORD	00	CRID				CDID											
	01	TP1 BITS 0-15															
	02	TP1 BITS 16-31															
	03	TP3 BITS 0-12													TP6 0-2		
	04	TP6 BITS 3-12											TP7 BITS 0-5				
	05	TP7 BITS 6-21															
	06	OPL, ORIGINATING PORT 0-15															
	07	OP	TPL, TERMINATING PORT 0-14														
	08	TP	OTG, ORIGINATING TRUNK GROUP													TT	
	09	TERMINATING TRUNK GROUP (1-12)												TP3Q			
	10	TP6Q	ACTION CODE							OTC				TTC			
	11	ID1				ID2				ANI INDEX							
	12	CLI 1				CLI 2				CLI 3				CLI 4			
	13	CLI 5				CLI 6				CLI 7				CLI 8			
	14	CLI 9				CLI 10				A1				A2			
	15	A3				A4				A5				A6			
	16	A7				A8				A9				A10			
	17	A11				A12				A13				A14			
	18	A15				A16				A17				A18			
	19	A19				A20				A21				A22			
	20	D1				D2				D3				D4			
	21	D5				D6				D7				D8			
	22	D9				D10				D11				D12			
	23	D13				D14				D15				D16			
	24	D17				PTO1				PTO2				PTO3			
	25	PTO4				PTO5				PTO6				PTO7			
	26	PTO8				PTO9				PTO10							
	27	PC				TMC				KMP				TP70			
	28	EC, ENTRY CODE								PO			MDID			DIVID	
	29	DO		CC	IN		SC	CD	DE	DT			SA	MOCLI			
	30	CN1				CN2				CN3				CN4			
	31	ACIF				SS7 RELEASE CODE							MCIDSEQ			NL	RS
	BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 84

	BITS	MSB 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	LSB 15
WORD	00	CRID				CDID											
	01	TP1 BITS 0–15															
	02	TP1 BITS 16–31															
	03	TP3 BITS 0–12													TP6 0–2		
	04	TP6 BITS 3–12											TP7 BITS 0–5				
	05	TP7 BITS 6–21															
	06	OPL, ORIGINATING PORT 0–15															
	07	OP	TPL, TERMINATING PORT 0–14														
	08	TP	OTG, ORIGINATING TRUNK GROUP														TT
	09	TERMINATING TRUNK GROUP (1–12)													TP3Q		
	10	TP6Q	ACTION CODE							OTC					TTC		
	11	ID1				ID2				ANI INDEX							
	12	CLI 1				CLI 2				CLI 3					CLI 4		
	13	CLI 5				CLI 6				CLI 7					CLI 8		
	14	CLI 9				CLI 10				CLI 11					CLI 12		
	15	CLI 13				CLI 14				CLI 15					A1		
	16	A2				A3				A4					A5		
	17	A6				A7				A8					A9		
	18	A10				A11				A12					A13		
	19	A14				A15				A16					A17		
	20	A18				A19				A20					A21		
	21	A22				A23				A24					A25		
	22	A26				A27				A28					A29		
	23	A30				A31				A32					A33		
	24	A34				A35				A36					A37		
	25	A38				A39				A40					A41		
	26	A42				A43				A44					A45		
	27	PC				TMC				KMP					TP70		
	28	EC, ENTRY CODE							PO				MDID			DIVID	
	29	DO	MN	CC	IN		SC	CD	DE	DT			SA		MOCLI		
	30	CN1				CN2				CN3					CN4		
	31	ACIF				SS7 RELEASE CODE							MCIDSEQ			NL	RS
	BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 85A

US 6,584,090 B1

BITS	MSB 00 01 02 03	04 05 06 07	08 09 10 11	12 13 14 LSB 15
32				
33				
34	D1	D2	D3	D4
35	D5	D6	D7	D8
36	D9	D10	D11	D12
37	D13	D14	D15	D16
38	D17	D18	D19	D20
39	D21	D22	D23	D24
40	D25	PTD1	PTD2	PTD3
41	PTD4	PTD5	PTD6	PTD7
42	PTD8	PTD9	PTD10	PTD11
43	PTD12	PTD13	PTD14	PTD15
44	EIR CALL TYPE		OVFVAL	CB
45	OVFCL	DTA 1	DTA 2	DTA 3
46	DTA 4	DTA 5	DTA 6	DTA 7
47	DTA 8	DTA 9	DTA 10	DTA 11
48	DTA 12	DTA 13	DTA 14	DTA 15
49	OVFC		DTAC	MCID
50	NETWORK CALL IDENTIFIER (NCID)			
51	NETWORK CALL IDENTIFIER (NCID)			
52	NETWORK CALL IDENTIFIER (NCID)			
53	NETWORK CALL IDENTIFIER (NCID)			
54	NETWORK CALL IDENTIFIER (NCID)			
55				
56				
57				
58				
59			USE TYPE	UUIE
60	UUIE COUNT CONT.			OVFCS
61	ORIGINATING NX64 BITMAP (1-16)			
62	ORIG NX64 BITMAP (17-24)		TERM NX64 BITMAP (1-8)	
63	TERMINATING NX64 BITMAP (9-24)			
BIT	00 01 02 03	04 05 06 07	08 09 10 11	12 13 14 15

FIG. 85B

	MSB															LSB
BITS	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
WORD 00	CRID				CDID											
01	TP1 BITS 0–15															
02	TP1 BITS 16–31															
03	TP4 BITS 0–12													TP6 0–2		
04	TP6 BITS 3–12											TP7 BITS 0–5				
05	TP7 BITS 6–21															
06	OPL, ORIGINATING PORT 0–15															
07	OP	TPL, TERMINATING PORT 0–14														
08	TP	OTG, ORIGINATING TRUNK GROUP														TT
09	TERMINATING TRUNK GROUP (1–12)													TP3Q		
10	TP6Q	ACTION CODE							OTC					TTC		
11	ID1				ID2				ONACC					TNACC		
12	CLI 1				CLI 2				CLI 3					CLI 4		
13	CLI 5				CLI 6				CLI 7					CLI 8		
14	CLI 9				CLI 10				A1					A2		
15	A3				A4				A5					A6		
16	A7				A8				A9					A10		
17	A11				A12				A13					A14		
18	A15				A16				A17					A18		
19	A19				A20				A21					A22		
20	D1				D2				D3					D4		
21	D5				D6				D7					D8		
22	D9				D10				D11					D12		
23	D13				D14				D15					D16		
24	D17				OPIN											
25	OPIN				TPS BITS 0–12											
26	RN1				RN2				RN3					RN4		
27	FC				TMC				NAT					TP7Q		
28	EC, ENTRY CODE								PQ			MDID			DIVID	
29	DO		CC	IN		SC	CD	DE	DT	PP	XC	SA		MOCLI		
30	CN1				CN2				CN3					CN4		
31	ACIF				SS7 RELEASE CODE							MCIDSEQ			NL	RS
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 86

10019905.960960

BITS	MSB 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	LSB 15
WORD 00	CRID				CDID											
01	TP1 BITS 0–15															
02	TP1 BITS 16–31															
03	TP3 BITS 0–12													TP6 0–2		
04	TP6 BITS 3–12											TP7 BITS 0–5				
05	TP7 BITS 6–21															
06	OPL, ORIGINATING PORT 0–15															
07	OP	TPL, TERMINATING PORT 0–14														
08	TP	OTG, ORIGINATING TRUNK GROUP														TT
09	TERMINATING TRUNK GROUP (1–12)													TP3Q		
10	TP6Q	ACTION CODE							OTC					TTC		
11	ID1				ID2				ORIG1					TERM1		
12	CLI 1				CLI 2				CLI 3					CLI 4		
13	CLI 5				CLI 6				CLI 7					CLI 8		
14	CLI 9				CLI 10				CLI 11					CLI 12		
15	CLI 13				CLI 14				CLI 15					A1		
16	A2				A3				A4					A5		
17	A6				A7				A8					A9		
18	A10				A11				A12					A13		
19	A14				A15				A16					A17		
20	A18				A19				A20					A21		
21	A22				A23				A24					A25		
22	A26				A27				A28					A29		
23	A30				A31				A32					A33		
24	A34				A35				A36					A37		
25	A38				A39				A40					A41		
26	A42				A43				A44					A45		
27	PC				TMC				MAT					TF7Q		
28	EC, ENTRY CODE							PD				MDID			DIVID	
29	DO	MN	CC	IN		SC	CD	DE	DT	PP	XC	SA	MOCLI			
30	CN1				CN2				CN3					CN4		
31	ACIF				SS7 RELEASE CODE							MCIDSEQ			NL	RS
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

EOSR/EPOSR FORMAT

FIG. 87A

BITS	MSB 00 01 02 03	04 05 06 07	08 09 10 11	12 13 14 LSB 15
32	T&C GUEST 1		T&C GUEST 2	
33	T&C GUEST 3		T&C GUEST 4	
34	D1	D2	D3	D4
35	D5	D6	D7	D8
36	D9	D10	D11	D12
37	D13	D14	D15	D16
38	D17	D18	D19	D20
39	D21	D22	D23	D24
40	D25	PTD1	PTD2	PTD3
41	PTD4	PTD5	PTD6	PTD7
42	PTD8	PTD9	PTD10	PTD11
43	PTD12	PTD13	PTD14	PTD15
44	EIR CALL TYPE		OVFVAL	CB
45	OVFCL	DTA 1	DTA 2	DTA 3
46	DTA 4	DTA 5	DTA 6	DTA 7
47	DTA 8	DTA 9	DTA 10	DTA 11
48	DTA 12	DTA 13	DTA 14	DTA 15
49	OVFC		DTAC	MCID
50	NETWORK CALL IDENTIFIER (NCID)			
51	NETWORK CALL IDENTIFIER (NCID)			
52	NETWORK CALL IDENTIFIER (NCID)			
53	NETWORK CALL IDENTIFIER (NCID)			
54	NETWORK CALL IDENTIFIER (NCID)			
55	T&C ROOM 1		T&C ROOM 2	
56	T&C ROOM 3		T&C ROOM 4	
57	T&C ROOM 5		T&C ROOM 6	
58	KAC1	KAC2	KAC3	KAC4
59	KAC5	KAC6	KAC7	KAC8
60	KAC9	KAC10	KAC11	KAC12
61	OPIN			OVFCS
62	TPS – OPERATOR RELEASE			
63	RN1	RN2	RN3	RN4
BIT	00 01 02 03	04 05 06 07	08 09 10 11	12 13 14 15

FIG. 87B

VON-96-046-C1

BIT	MSB 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	LSB 15
WORD 00	CRID				SYNC WORD (MINUS 2, OCTAL 7776)											
01	CDID, CALL DISCONNECT I.D. NUMBER (0-15)															
02	CDID, CALL DISCONECT I.D. NUMBER (16-31)															
03	SWID 1				SWID 2						SWID 3					
04	ST - SWITCH TYPE								EQ - EVENT QUALIFIER							
05	SERET - SER EVENT TIME (0-15)															
06	SERET - SER EVENT TIME (16-31)															
07					FCDID - FIRST RECORD CDID (12 LSBs)											
08					LCDID - LAST RECORD CDID (12 LSBs)											
09					NCDID - NEXT RECORD CDID (12 LSBs)											
10	NBSM - NEXAS BLOCK SEQUENCE MONSTER															
11	PT - PREVIOUS TIME (0-15)															
12	PT - PREVIOUS TIME (16-31)															
13	SI	TIME OFFSET														
14																
15																
16	SOFTWARE LOAD ID1								SOFTWARE LOAD ID2							
17	SOFTWARE LOAD ID3								SOFTWARE LOAD ID4							
18	SOFTWARE LOAD ID5								SOFTWARE LOAD ID6							
19	LAST PATCH/PR RLS1								LAST PATCH/PR RLS2							
20	QCDR							QICDR								
21	QPMR							QEPMR								
22	QOER							QEOMR								
23	QPOER							QEPOER								
24	QSER							CRYN								SU
25	CIR THROTTLE START TIME (0-15)															
26	CIR THROTTLE START TIME (16-31)															
27	CIR THROTTLE STOP TIME (0-15)															
28	CIR THROTTLE STOP TIME (16-31)															
29																FORMAT VER.
30	THROTTLE COUNT (0-15)															
31	THROTTLE COUNT (16-31)															
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 88

D94760 "D0E1T0"

10/17/98, 2965960

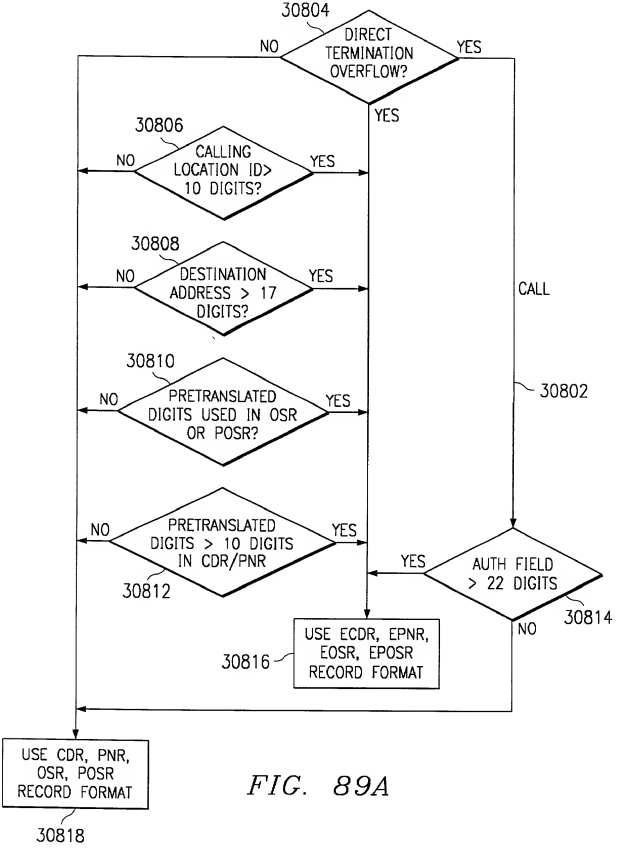


FIG. 89A

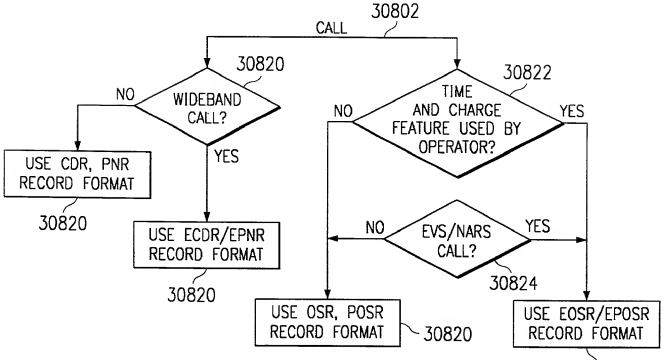


FIG. 89B

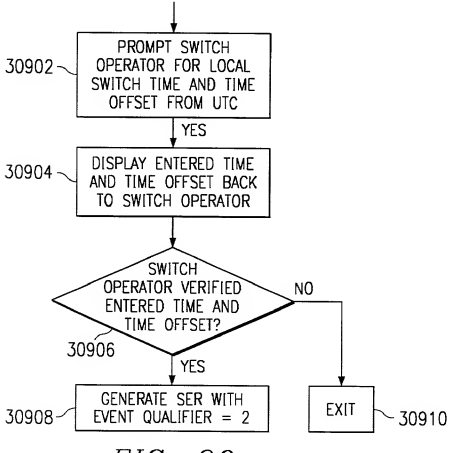


FIG. 90

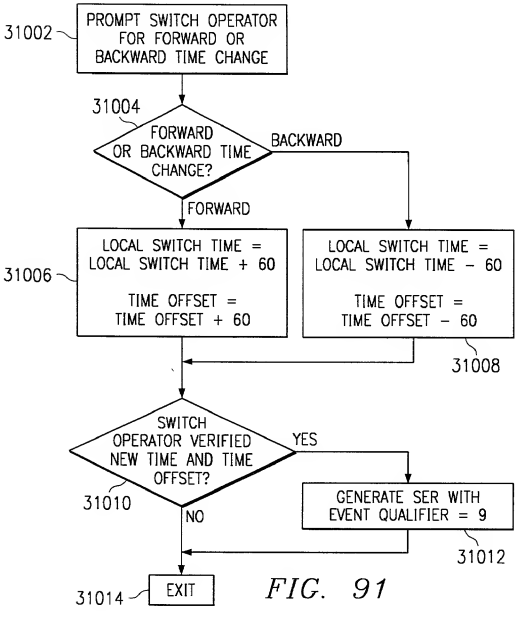


FIG. 91

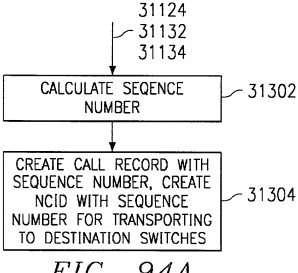


FIG. 94A

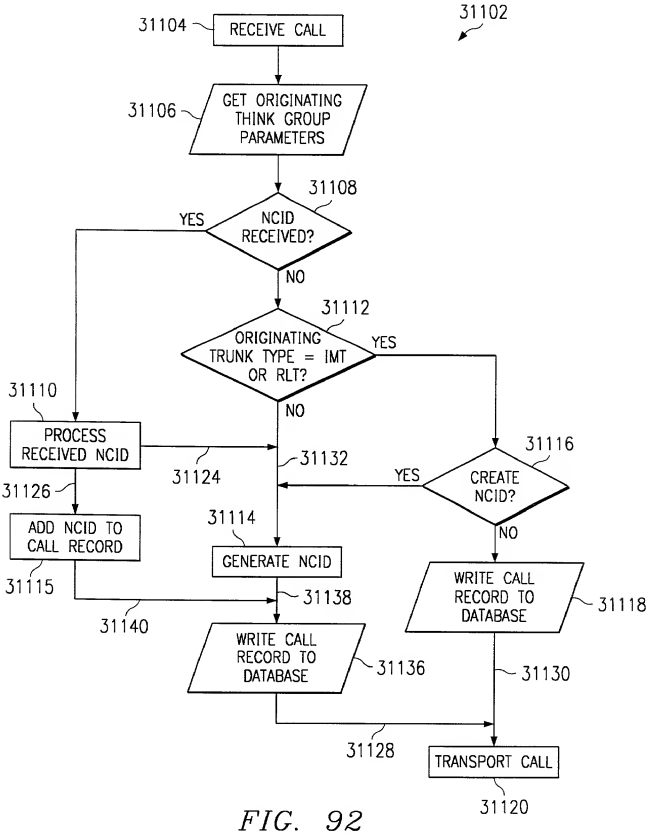

31102
31104
RECEIVE CALL
31106
GET ORIGINATING THINK GROUP PARAMETERS
31108
NCID RECEIVED?
YES
NO
31112
ORIGINATING TRUNK TYPE = IMT OR RLT?
YES
NO
31110
PROCESS RECEIVED NCID
31124
31132
31116
CREATE NCID?
YES
NO
31126
ADD NCID TO CALL RECORD
31114
GENERATE NCID
31115
31138
31140
WRITE CALL RECORD TO DATABASE
31136
WRITE CALL RECORD TO DATABASE
31118
31130
31128
TRANSPORT CALL
31120

FIG. 92

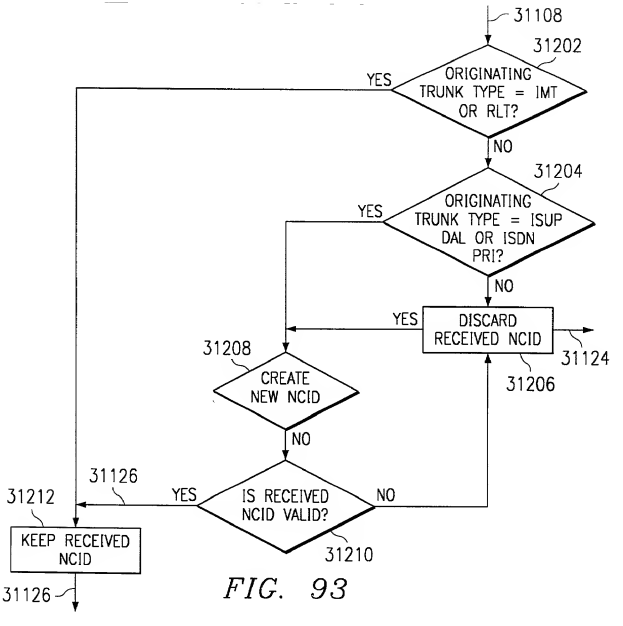


FIG. 93

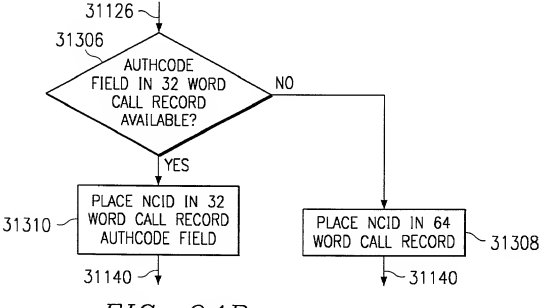


FIG. 94B

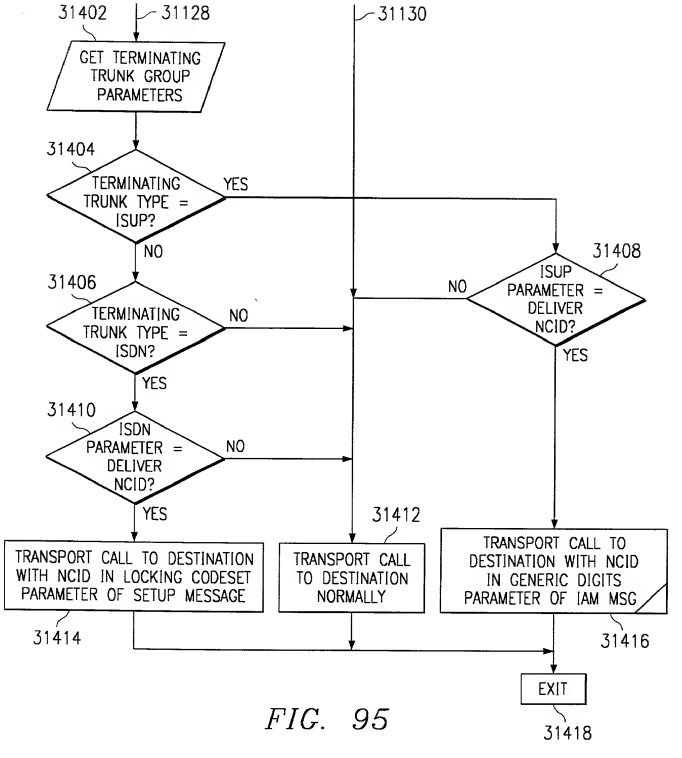

31402
31128
31130
GET TERMINATING TRUNK GROUP PARAMETERS
31404
TERMINATING TRUNK TYPE = ISUP?
YES
NO
31408
ISUP PARAMETER = DELIVER NCID?
NO
YES
31406
TERMINATING TRUNK TYPE = ISDN?
NO
YES
31410
ISDN PARAMETER = DELIVER NCID?
NO
YES
31412
TRANSPORT CALL TO DESTINATION WITH NCID IN LOCKING CODESET PARAMETER OF SETUP MESSAGE
TRANSPORT CALL TO DESTINATION NORMALLY
TRANSPORT CALL TO DESTINATION WITH NCID IN GENERIC DIGITS PARAMETER OF IAM MSG
31414
31416
EXIT
31418

FIG. 95

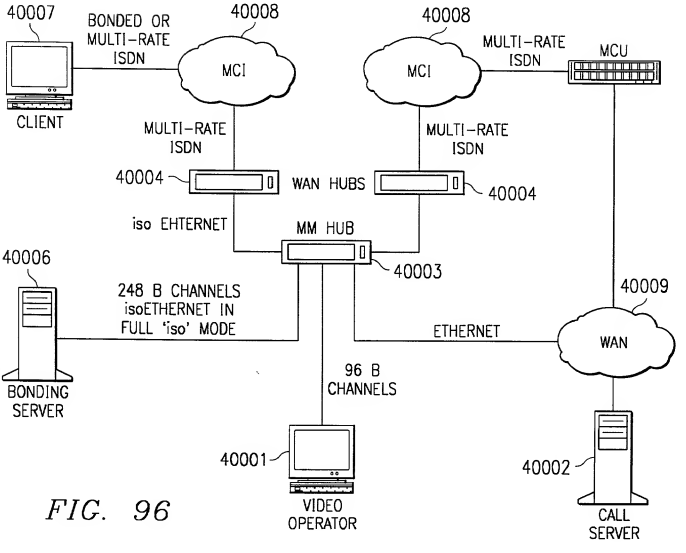
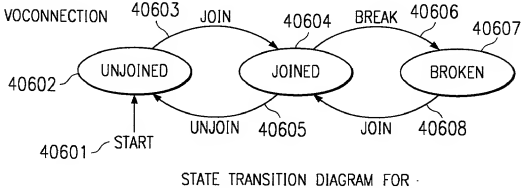


FIG. 96



STATE TRANSITION DIAGRAM FOR VOCONNECTION'S STATE VARIABLE

FIG. 102

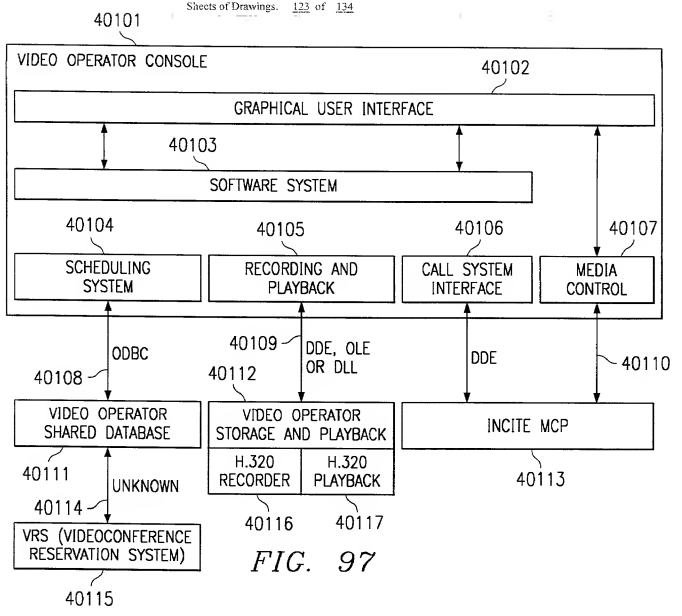


FIG. 97

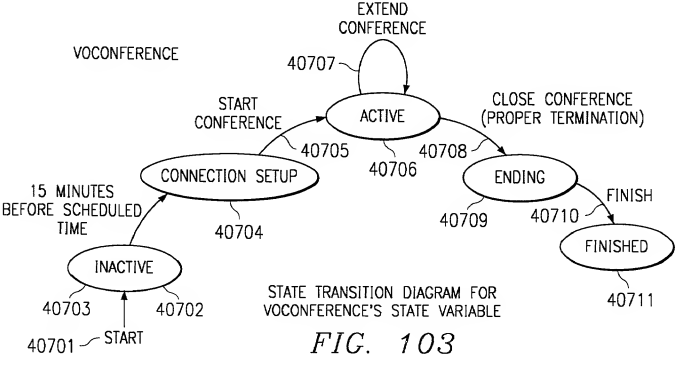


FIG. 103

FOh790 E866,86D

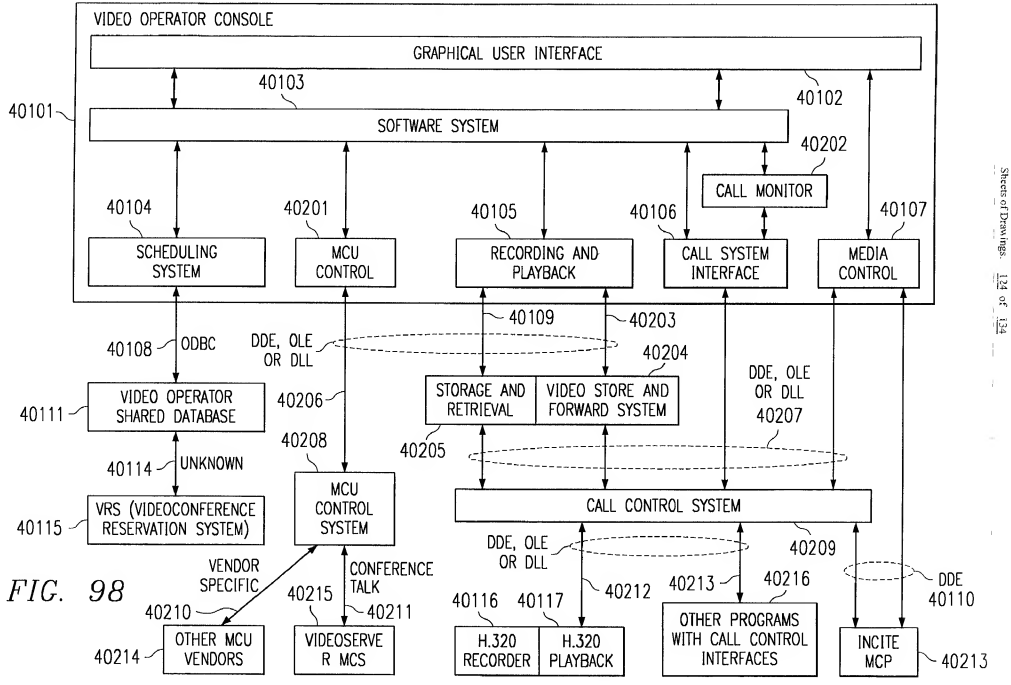


FIG. 98

Docket No.: YOR-96-046-C1 Appln No. NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al
Sheets of Drawings: 124 of 134

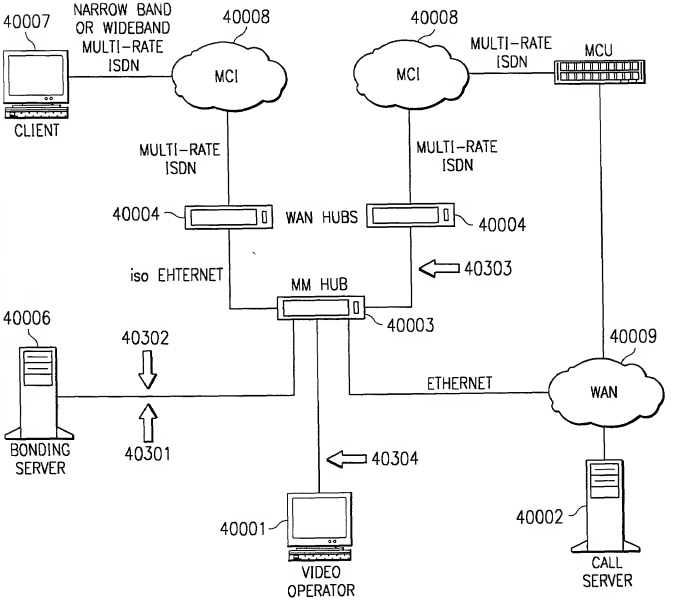
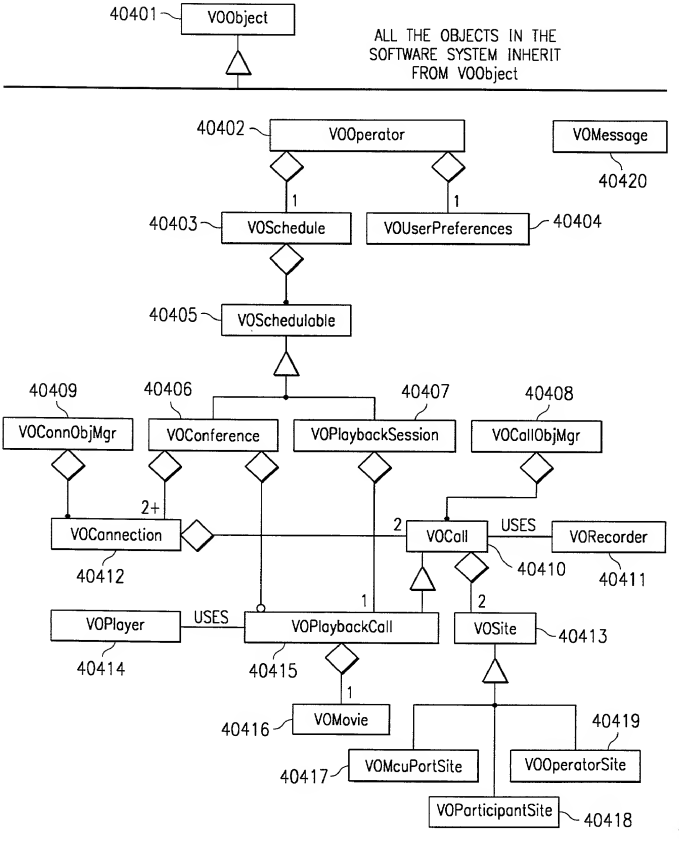

40007
NARROW BAND OR WIDEBAND MULTI-RATE ISDN
40008
MCI
CLIENT
40008
MCI
MULTI-RATE ISDN
MCU
MULTI-RATE ISDN
MULTI-RATE ISDN
40004
WAN HUBS
40004
iso EHTERNET
40303
MM HUB
40003
40006
40302
40009
ETHERNET
WAN
BONDING SERVER
40301
40304
40001
VIDEO OPERATOR
40002
CALL SERVER

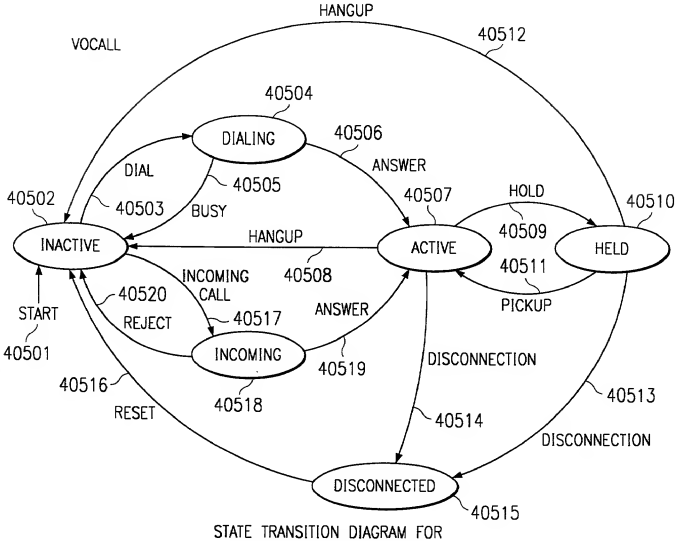
FIG. 99

VIDEO OPERATOR SOFTWARE SYSTEM CLASSES



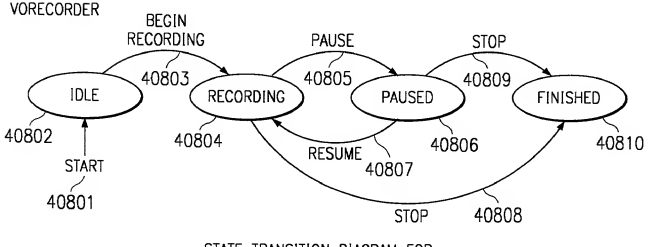
CLASS HIERARCHY FOR VIDEO OPERATOR SOFTWARE SYSTEM

FIG. 100



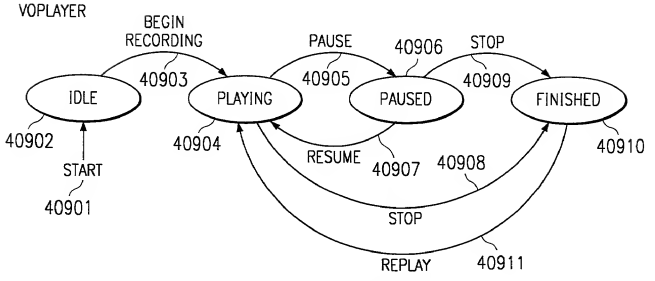
STATE TRANSITION DIAGRAM FOR VOCALL'S STATE VARIABLE

FIG. 101



STATE TRANSITION DIAGRAM FOR VORECORDER'S STATE VARIABLE

FIG. 104



STATE TRANSITION DIAGRAM FOR VOPLAYER'S STATE VARIABLE

FIG. 105

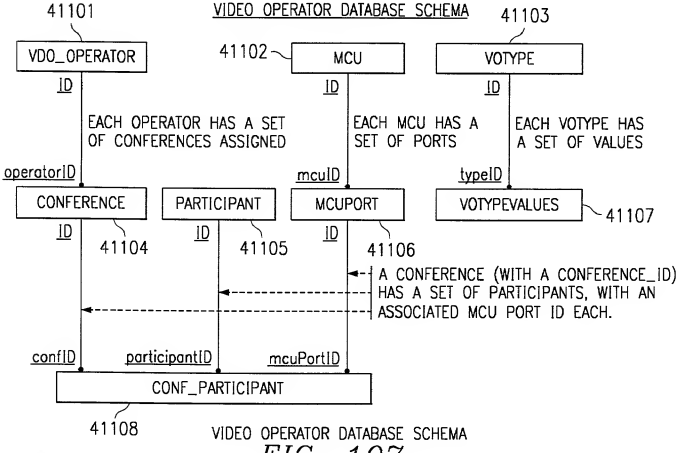


FIG. 107

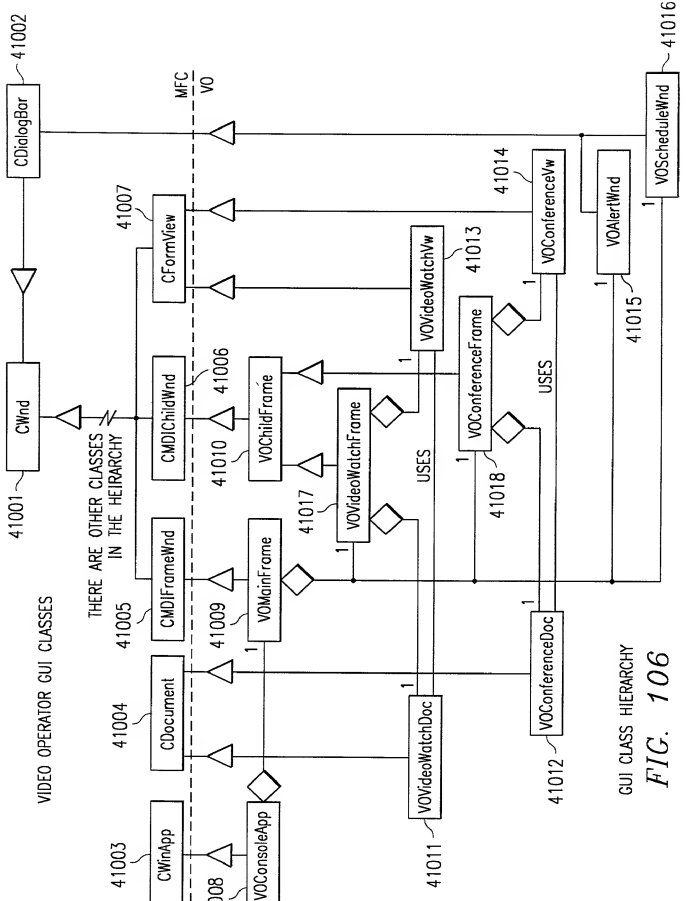
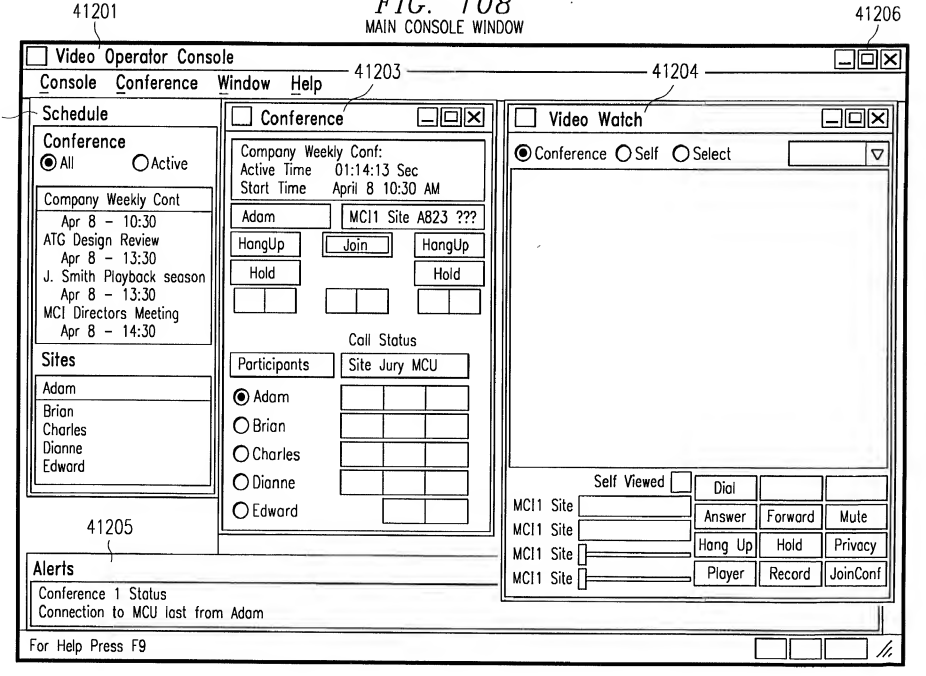

VIDEO OPERATOR GUI CLASSES
THERE ARE OTHER CLASSES IN THE HEIRARCHY
MFC
VO
41001
CWnd
41002
CDialogBar
41003
CWinApp
41004
CDocument
41005
CMDIFrameWnd
41006
CMDIChildWnd
41007
CFormView
41008
VOConsoleApp
41009
VOMainFrame
41010
VOChildFrame
41011
VOVideoWatchDoc
41012
VOConferenceDoc
41013
VOVideoWatchVw
41014
VOConferenceVw
41015
VOAlertWnd
41016
VOScheduleWnd
41017
VOVideoWatchFrame
41018
VOConferenceFrame
USES
USES
1
GUI CLASS HIERARCHY

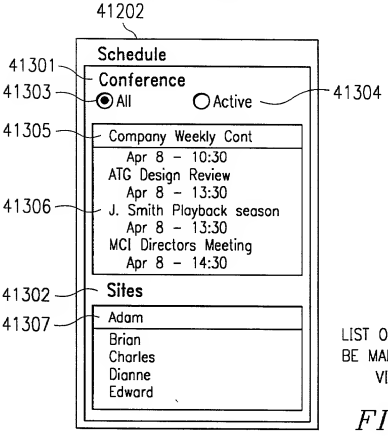
FIG. 106

TO:T90* E866Z860

Docket No. VON-96-046-C1 Appln No. NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: FLIGOT et al
Sheets of Drawings 120 of 134

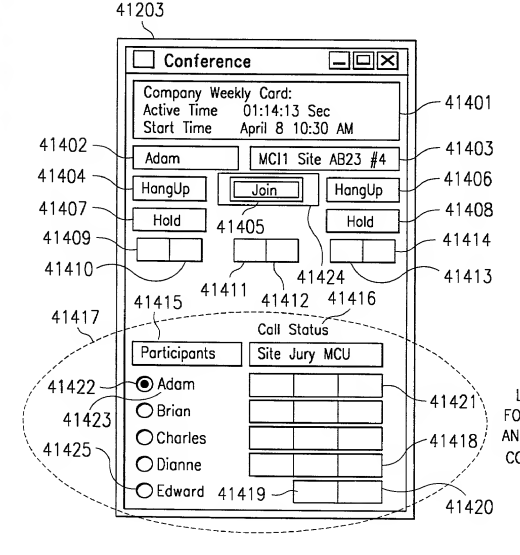
FIG. 108
MAIN CONSOLE WINDOW





LIST OF CONFERENCES TO BE MANAGED BY CURRENT VIDEO OPERATOR

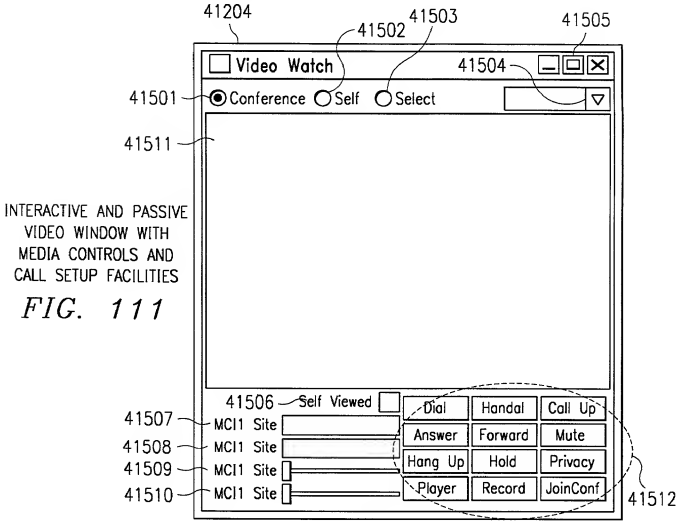
FIG. 109



LIST OF CONNECTIONS FOR A CONFERENCE CALL AND CALL STATUSES, WITH CONNECTION OPERATIONS

FIG. 110

US005699523A



INTERACTIVE AND PASSIVE VIDEO WINDOW WITH MEDIA CONTROLS AND CALL SETUP FACILITIES

FIG. 111

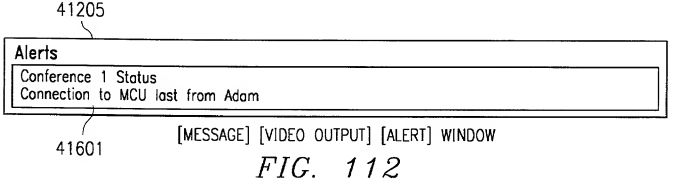


FIG. 112

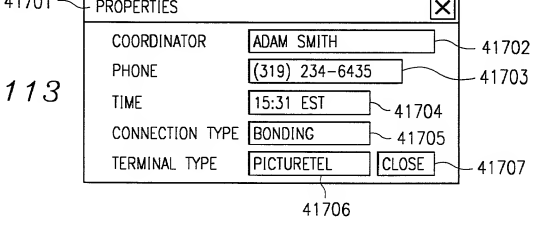
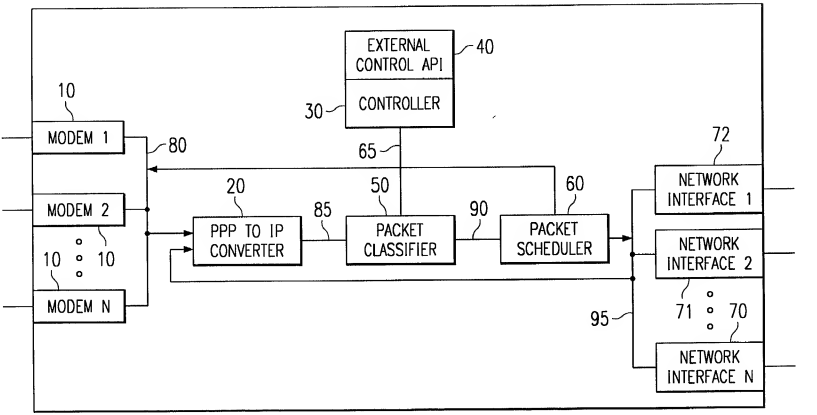


FIG. 113

Docket No.: VON-96.066-C1 Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheets of Drawings: 113 of 134

FIG. 114A



09879983 .061401

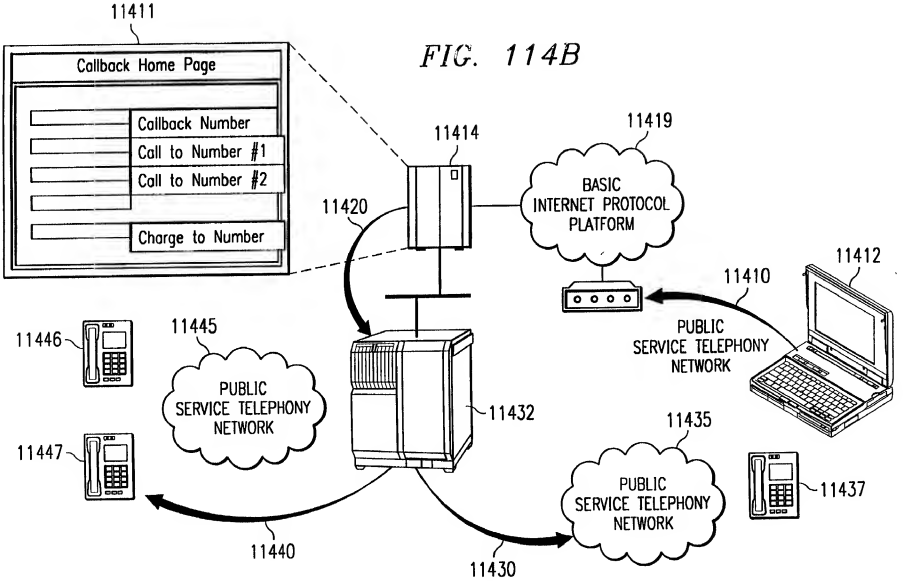



FIG. 114B